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<210> 5832

<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

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Ala	Val	His	His	Ile	Ile	His	Asp	Phe	Gln	Pro	His	Val	Ile	Val	His
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Cys	Ala	Ala	Glu	Arg	Arg	Pro	Asp	Val	Val	Glu	Asn	Gln	Pro	Asp	Ala
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Ala	Ala	Val	Gly	Ala	Phe	Leu	Ile	Tyr	Ile	Ser	Ser	Asp	Tyr	Val	Phe
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Asp	Gly	Thr	Asn	Pro	Pro	Tyr	Arg	Glu	Glu	Asp	Ile	Pro	Ala	Pro	Leu
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Gln	Phe	Ser	Asn	Lys	Ser	Ala	Asn	Met	Asp	His	Trp	Gln	Gln	Arg	Phe
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Pro	Thr	His	Val	Lys	Asp	Val	Ala	Thr	Val	Cys	Arg	Gln	Leu	Ala	Glu
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Glu	Thr	Leu	Gly	Ile	Gly	Gln	Arg	Thr	Pro	Phe	Arg	Ile	Gly	Ile	Lys
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Glu	Ser	Leu	Trp	Pro	Phe	Leu	Ile	Asp	Lys	Arg	Trp	Arg	Gln	Thr	Val
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Phe	His														

<210> 5833
 <211> 805
 <212> DNA
 <213> Homo sapiens

<400> 5833
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 180
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<210> 5834
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 <212> PRT
 <213> Homo sapiens

<400> 5834
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 35 40 45
 Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val
 50 55 60
 Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro
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 Leu Glu Phe Leu Arg Arg Val Pro Leu Gly Phe Ser Ala Pro Pro Asp

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Tyr	Leu	Leu	Met	Gly	Arg	Glu	Leu	Glu	Tyr	Leu	Glu	Glu	Val	Pro	Pro				
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Gly	Asn	Val	Leu	Gly	Ile	Gly	Gly	Leu	Gln	Asp	Phe	Val	Leu	Lys	Ser				
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Ala	Thr	Leu	Cys	Ser	Leu	Pro	Ser	Cys	Pro	Pro	Phe	Ile	Pro	Leu	Asn				
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Ser	Glu	Met	Pro	Gln	Leu	Val	Lys	Gly	Met	Lys	Leu	Leu	Asn	Gln	Ala				
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Asp	Pro	Cys	Val	Gln	Ile	Leu	Ile	Gln	Glu	Thr	Gly	Glu	His	Val	Leu				
	195					200					205								
Val	Thr	Ala	Gly	Glu	Val	His	Leu	Gln	Arg	Cys	Leu	Asp	Asp	Leu	Lys				
	210					215					220								
Glu	Arg	Phe	Ala	Lys	Ile	His	Ile	Ser	Val	Ser	Glu	Pro	Ile	Ile	Pro				
225				230				235							240				
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<210> 5835

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5835

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gcactgcata agcaagttct tatgggcca tataatccag acacttgtcc tgaggttgga
180

ttctttgatg tggtggggaa tgacaggagg agagaatggg cagccctggg aaacatgtct
240

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300

acatatgttg cgtcccacaa aatagagaag gaagagcaag acaaaaaaag gaaggaggaa
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<210> 5836

<211> 140

<212> PRT

<213> Homo sapiens

<400> 5836

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Ala Leu Arg Phe Phe Lys Glu Lys Asp Gly Lys Ala Phe His Pro Thr

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Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met
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Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val
                50                55                60
Leu Gly Asn Asp Arg Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser
65                70                75                80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Leu Asn Arg Cys Cys
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His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu
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Gln Asp Lys Lys Arg Lys Glu Glu Glu Glu Arg Arg Arg Arg Glu Glu
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<210> 5837
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 <212> DNA
 <213> Homo sapiens

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480
cgaggaaggg gctgcagttc tccaaggatt cccgcctgct cccagatccc cgggagtcgt
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<210> 5838
 <211> 88
 <212> PRT
 <213> Homo sapiens

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<400> 5838
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Phe Ser Met Leu Cys Cys Phe Trp Pro Val Gly Ile Ala Ala Phe Cys
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Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

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	35		40		45	
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	50		55		60	
Gly	Leu	Gly	Val	Cys	Thr	Tyr
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Tyr	Leu	Ala	Ser	Arg	Asp	Pro
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<210> 5839
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 5839
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 120
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 180
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 240
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<210> 5840
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 5840
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 35 40 45
 Pro Arg Gly Ser Gly Phe Pro Ala Gln Gly Ile Phe Asp Pro Cys Gln
 50 55 60
 Arg Arg Glu Arg Glu Leu Ser Trp Phe Pro Phe His Leu Phe Ser Gly
 65 70 75 80
 Cys Phe Lys Ala Asn Ile Pro Val Pro Asn Val Leu Cys Gly Leu Asn
 85 90 95
 Pro Gly Arg Gly Gln Gly His Ile Gln Val Gly Leu Ala Ser Ser Thr
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 Thr Phe Trp Pro Gln Gln Arg Met Gly Phe His Gln Ser Leu Ser Thr
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 Ser Arg Phe Pro Lys Glu Ser Pro Arg Ser
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<210> 5841
 <211> 3411
 <212> DNA
 <213> Homo sapiens

<400> 5841

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<210> 5842

<211> 460

<212> PRT

<213> Homo sapiens

<400> 5842

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Thr	Leu	Trp	Gly	His	Glu	Asn	Pro	Phe	Ser	Asp	Leu	Pro	Ser	Gly	Thr
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Leu	Asn	Phe	His	Pro	Val	Trp	Thr	Ser	Arg	Thr	Cys	Ser	Arg	Pro	Pro
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Phe	Cys	Leu	Ser	Gln	Ile	Val	Gln	Leu	Lys	Ala	Ile	Asn	Val	Asp	Leu
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Gln	Ser	Asp	Ala	Ala	Leu	Gln	Val	Asp	Ile	Ser	Asp	Ala	Leu	Ser	Glu
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Phe	Lys	Gln	Asn	Glu	Phe	Ser	Val	Val	Arg	Gln	His	Glu	Glu	Phe	Ile
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Ile	Pro	Pro	Ala	Pro	Pro	Arg	Pro	Asp	Phe	Asp	Ala	Ser	Arg	Glu	Lys
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Leu	Gln	Lys	Leu	Gly	Glu	Gly	Glu	Gly	Ser	Met	Thr	Lys	Glu	Glu	Phe
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Thr	Lys	Met	Lys	Gln	Glu	Leu	Glu	Ala	Glu	Tyr	Leu	Ala	Ile	Phe	Lys
			180					185					190		
Lys	Thr	Val	Ala	Met	His	Glu	Val	Phe	Leu	Cys	Arg	Val	Ala	Ala	His
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Pro	Ile	Leu	Arg	Arg	Asp	Leu	Asn	Phe	His	Val	Phe	Leu	Glu	Tyr	Asn
	210					215					220				
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<212> DNA

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 <211> 154
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Pro Ile His Ile Ala Glu Gly Gly Arg Gly Arg Pro Pro Pro Gly
 50 55 60
 Ser Ala Ser Asn Pro Gln Pro Pro Gly Ser Pro His Cys Pro Ser Ala
 65 70 75 80
 Gly Leu Ser Pro Val Pro Gly Val Gly Gly Arg Gln Cys Pro Gly Thr
 85 90 95
 Val Pro Arg Val Arg Arg Pro Gly Leu Ala Gly His Pro Val Thr His
 100 105 110
 Arg Ile Asn Arg Lys Thr Ala Ser Pro Pro Asn Leu Cys Pro Arg His
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 Gln Arg Thr Leu Thr Pro Pro Arg Gly Ala
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<210> 5851
 <211> 488

<212> DNA

<213> Homo sapiens

<400> 5851

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<210> 5852

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5852

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		35					40					45			
Thr	Glu	Asp	Thr	Ser	Arg	Thr	Asp	Ala	Tyr	Glu	Ser	Tyr	Lys	Lys	Lys
	50					55					60				
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<210> 5853

<211> 487

<212> DNA

<213> Homo sapiens

<400> 5853

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<210> 5854
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<400> 5854
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 Ser Trp Pro Leu
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 <211> 362
 <212> DNA
 <213> Homo sapiens

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<210> 5856
 <211> 113
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<213> Homo sapiens

<400> 5856

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      20             25             30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35             40             45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50             55             60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
65             70             75             80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
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His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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<210> 5858

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5858

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			20					25					30		
Gly	Gly	Gln	Gly	Arg	Gly	Gly	Glu	Lys	Pro	Pro	His	Leu	Ala	Ala	Leu
		35					40					45			
Ile	Leu	Ala	Arg	Gly	Gly	Ser	Lys	Gly	Ile	Pro	Leu	Lys	Asn	Ile	Lys
	50				55					60					
His	Leu	Ala	Gly	Val	Pro	Leu	Ile	Gly	Trp	Val	Leu	Arg	Ala	Ala	Leu
65					70				75					80	
Asp	Ser	Gly	Ala	Phe	Gln	Ser	Val	Trp	Val	Ser	Thr	Asp	His	Asp	Glu
			85					90					95		
Ile	Glu	Asn	Val	Ala	Lys	Gln	Phe	Gly	Ala	Gln	Val	His	Arg	Arg	Ser
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Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu		
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Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp		
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Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu		
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Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn		
275	280	285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp		
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Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu		
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Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val		
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Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala		
385	390	395
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu		
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<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

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 <211> 96
 <212> PRT
 <213> Homo sapiens

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 Gln Met Gly Leu Gly Arg Cys Arg Phe Cys Phe Ser Pro Trp Leu Pro
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<210> 5861
 <211> 1951
 <212> DNA
 <213> Homo sapiens

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<210> 5862
 <211> 514
 <212> PRT
 <213> Homo sapiens

<400> 5862

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Lys	Val	Lys	Glu	Val	Cys	Pro	Asn	Val	His	Glu	Lys	Ile	Arg	Ala	Ile
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Gln	Glu	Leu	Leu	Ser	Cys	Thr	Asn	Ile	Ile	Phe	His	Cys	Ala	Ala	Thr
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Val	Leu	Ala	Thr	Phe	Glu	Lys	Ile	Pro	Phe	Glu	Arg	Pro	Phe	Arg	Arg
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 385 390 395 400
 Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
 405 410 415
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 420 425 430
 Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
 435 440 445
 Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
 450 455 460
 Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
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<210> 5863
 <211> 438
 <212> DNA
 <213> Homo sapiens

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<210> 5864
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 5864
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 Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

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<400> 5866
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35 40 45
Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
50 55 60
Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
65 70 75 80
Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
85 90 95
Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
100 105 110
Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
115 120 125
Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
130 135 140
Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
145 150 155 160
Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
165 170 175
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Ala Lys Pro Ser
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<210> 5867
<211> 1882
<212> DNA
<213> Homo sapiens

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<210> 5868
<211> 131
<212> PRT
<213> Homo sapiens

<400> 5868
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Trp Ile Asn Phe Lys Thr Ser Glu Ala Asn Ser Ala Arg Gly Phe Gln
35 40 45
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp
50 55 60
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile
65 70 75 80
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His
85 90 95
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro
100 105 110
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg
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Pro Tyr Lys
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<210> 5869
<211> 910
<212> DNA
<213> Homo sapiens

<400> 5869
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<210> 5870

<211> 129

<212> PRT

<213> Homo sapiens

<400> 5870

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			20					25					30		
Gly	Ser	Leu	Leu	Ile	Met	His	His	Glu	Ala	Ser	Thr	His	Arg	Val	Ile
			35				40					45			
Pro	Thr	Leu	Val	Gln	Thr	Gly	Leu	His	Gly	Arg	His	Ile	Leu	Gly	Arg
			50			55					60				
His	Val	Phe	Gly	Ser	Ala	Ala	Asn	Leu	Phe	Ser	Cys	Ala	Ile	Asp	Gln
65					70					75				80	
Val	Phe	Pro	Asn	Glu	Gly	Cys	Leu	Pro	Tyr	Ser	Cys	Gln	Glu	Pro	Asn
			85						90				95		
Ser	Ser	Leu	Gln	Tyr	Gln	Ile	Gln	Ser	Val	Val	Arg	Met	Lys	Cys	Gly
			100					105					110		
Gly	Leu	Val	Thr	Glu	Glu	Ala	Val	Glu	Arg	Arg	Arg	Ala	Trp	Val	Ala
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Pro

<210> 5871

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 5871

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<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

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			20					25					30		
Leu	Tyr	Thr	Ser	Ser	Ser	His	His	Ser	His	Ser	Tyr	Ile	Gly	Leu	Pro
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Tyr	Ala	Asp	His	Asn	Tyr	Gly	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Pro	Ala
	50					55					60				
Ser	Pro	Pro	Pro	Ser	Val	Leu	Ile	Ser	Lys	Asn	Glu	Val	Gly	Ile	Phe
65					70					75					80
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<210> 5876

<211> 1648

<212> PRT

<213> Homo sapiens

<400> 5876

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Glu	Val	Ser	Ala	Asp	Gly	Val	Asn	Met	Leu	Pro	Leu	Ser	Thr	Pro	Val
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Val	Ala	Ser	Ala	Val	Cys	Leu	Arg	Leu	His	Arg	Pro	Arg	Asp	Ala	Ser

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Thr Leu Gly Leu Ser Gln Ile Lys Leu Leu Gly Leu Thr Ala Phe Gly
85 90 95
Thr Thr Ser Ser Ala Thr Val Asn Asn Pro Phe Leu Pro Ser Glu Asp
100 105 110
Gln Val Ser Lys Thr Ser Ile Gly Trp Leu Arg Leu Leu His His Cys
115 120 125
Leu Thr His Ile Ser Asp Leu Glu Gly Met Met Ala Ser Ala Ala Ala
130 135 140
Pro Thr Ala Asn Leu Leu Gln Thr Cys Ala Ala Leu Leu Met Ser Pro
145 150 155 160
Tyr Cys Gly Met His Ser Pro Asn Ile Glu Val Val Leu Val Lys Ile
165 170 175
Gly Leu Gln Ser Thr Arg Ile Gly Leu Lys Leu Ile Asp Ile Leu Leu
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Arg Asn Cys Ala Ala Ser Gly Ser Asp Pro Thr Asp Leu Asn Ser Pro
195 200 205
Leu Leu Phe Gly Arg Leu Asn Gly Leu Ser Ser Asp Ser Thr Ile Asp
210 215 220
Ile Leu Tyr Gln Leu Gly Thr Thr Gln Asp Pro Gly Thr Lys Asp Arg
225 230 235 240
Ile Gln Ala Leu Leu Lys Trp Val Ser Asp Ser Ala Arg Val Ala Ala
245 250 255
Met Lys Arg Ser Gly Arg Met Asn Tyr Met Cys Pro Asn Ser Ser Thr
260 265 270
Val Glu Tyr Gly Leu Leu Met Pro Ser Pro Ser His Leu His Cys Val
275 280 285
Ala Ala Ile Leu Trp His Ser Tyr Glu Leu Leu Val Glu Tyr Asp Leu
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Pro Ala Leu Leu Asp Gln Glu Leu Phe Glu Leu Leu Phe Asn Trp Ser
305 310 315 320
Met Ser Leu Pro Cys Asn Met Val Leu Lys Lys Ala Val Asp Ser Leu
325 330 335
Leu Cys Ser Met Cys His Val His Pro Asn Tyr Phe Ser Leu Leu Met
340 345 350
Gly Trp Met Gly Ile Thr Pro Pro Pro Val Gln Cys His His Arg Leu
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Ser Met Thr Asp Asp Ser Lys Lys Gln Asp Leu Ser Ser Ser Leu Thr
370 375 380
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405 410 415
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420 425 430
Phe Cys Phe Ser His Ile Ser Ser Ser Glu Ser Ile Ala Gln Ser Ile
435 440 445
Asp Ile Ser Gln Asp Lys Leu Arg Arg His His Val Pro Gln Gln Cys
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Asn Lys Met Pro Ile Thr Ala Asp Leu Val Ala Pro Ile Leu Arg Phe
465 470 475 480
Leu Thr Glu Val Gly Asn Ser His Ile Met Lys Asp Trp Leu Gly Gly
485 490 495
Ser Glu Val Asn Pro Leu Trp Thr Ala Leu Leu Phe Leu Leu Cys His

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Cys	Ile	Ser	Cys	His	Pro	Asn	Asn	Gln	Lys	Leu	Met	Ala	Gln	Val	Leu	
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Gly	Asn	Ile	Ser	Gly	Phe	Ile	Arg	Arg	Leu	Phe	Leu	Gln	Leu	Met	Leu	
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Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr	
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Lys	Gly	Arg	Ile	Asn	Ala	Thr	Ser	His	Val	Ile	Gln	His	Pro	Met	Tyr	
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Val	Pro	Val	Phe	His	Leu	Phe	His	Lys	Leu	Leu	Ala	Gly	Gln	Pro	Leu	
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Pro	Ala	Glu	Met	Thr	Leu	Ala	Gln	Leu	Leu	Thr	Leu	Leu	Tyr	Asp	Arg	
770					775					780						
Lys	Leu	Pro	Gln	Gly	Tyr	Arg	Ser	Ile	Asp	Leu	Thr	Val	Lys	Leu	Gly	
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Ser	Arg	Val	Ile	Thr	Asp	Pro	Ser	Leu	Ser	Lys	Thr	Asp	Ser	Tyr	Lys	
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Glu	Asp	Glu	Ala	Leu	Thr	Pro	Gly	Asp	Glu	Cys	Met	Asp	Gly	Ile	Leu	
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Asp	Glu	Ser	Leu	Leu	Glu	Thr	Cys	Pro	Ile	Gln	Ser	Pro	Leu	Gln	Val	
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Phe	Ala	Gly	Met	Gly	Gly	Leu	Ala	Leu	Ile	Ala	Glu	Arg	Leu	Pro	Met	
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Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser	
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Ile	Glu	Gln	Ser	Gly	Glu	Leu	Val	Tyr	Glu	Ala	Pro	Glu	Thr	Val	Ala	
915					920					925						
Ala	Glu	Pro	Pro	Pro	Ile	Lys	Ser	Ala	Val	Gln	Thr	Met	Ser	Pro	Ile	

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Pro Ala His Ser Leu Ala Ala Phe Gly Leu Phe Leu Arg Leu Pro Gly
945 950 955 960
Tyr Ala Glu Val Leu Leu Lys Glu Arg Lys His Ala Gln Cys Leu Leu
965 970 975
Arg Leu Val Leu Gly Val Thr Asp Asp Gly Glu Gly Ser His Ile Leu
980 985 990
Gln Ser Pro Ser Ala Asn Val Leu Pro Thr Leu Pro Phe His Val Leu
995 1000 1005
Arg Ser Leu Phe Ser Thr Thr Pro Leu Thr Thr Asp Asp Gly Val Leu
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Cys Leu Ser Ala Leu Ser His His Ser Pro Arg Val Pro Asn Ser Ser
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1075 1080 1085
Gly Ser Thr Ala Ser Gly Trp Asp Val Glu Gln Ala Leu Thr Lys Gln
1090 1095 1100
Arg Leu Glu Glu Glu His Val Thr Cys Leu Leu Gln Val Leu Ala Ser
1105 1110 1115 1120
Tyr Ile Asn Pro Val Ser Ser Ala Val Asn Gly Glu Ala Gln Ser Ser
1125 1130 1135
His Glu Thr Arg Gly Gln Asn Ser Asn Ala Leu Pro Ser Val Leu Leu
1140 1145 1150
Glu Leu Leu Ser Gln Ser Cys Leu Ile Pro Ala Met Ser Ser Tyr Leu
1155 1160 1165
Arg Asn Asp Ser Val Leu Asp Met Ala Arg His Val Pro Leu Tyr Arg
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Gln Ser Glu Cys Gln Thr Ser Val Gly Thr Leu Leu Ala Lys Met Lys
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1250 1255 1260
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Ala Ala Thr Thr Ser Leu Arg Arg Ala Asn Gln Glu Lys Lys Leu Gly
1285 1290 1295
Glu Tyr Ser Lys Lys Ala Ala Met Lys Pro Lys Pro Leu Ser Val Leu
1300 1305 1310
Lys Ser Leu Glu Glu Lys Tyr Val Ala Val Met Lys Lys Leu Gln Phe
1315 1320 1325
Asp Thr Phe Glu Met Val Ser Glu Asp Glu Asp Gly Lys Leu Gly Phe
1330 1335 1340
Lys Val Asn Tyr His Tyr Met Ser Gln Val Lys Asn Ala Asn Asp Ala
1345 1350 1355 1360
Asn Ser Ala Ala Arg Ala Arg Arg Leu Ala Gln Glu Ala Val Thr Leu

	1365	1370	1375
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Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala			
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Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro			
	1410	1415	1420
Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly			
1425	1430	1435	1440
Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val			
	1445	1450	1455
Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp			
	1460	1465	1470
Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser			
	1475	1480	1485
Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg			
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Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly			
1505	1510	1515	1520
Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg			
	1525	1530	1535
Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu			
	1540	1545	1550
Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile			
	1555	1560	1565
Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His			
	1570	1575	1580
Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu			
1585	1590	1595	1600
Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro			
	1605	1610	1615
Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp			
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Gln Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu			
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<210> 5877

<211> 683

<212> DNA

<213> Homo sapiens

<400> 5877

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180
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240
ctggtctcag gaggagatga ccgccgggtt ctgctatggc acatggaaca agccatccac
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360

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 480
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<210> 5878

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5878

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Arg	Gly	Leu	His	Gly	Asp	Pro	Leu	Leu	Thr	Gln	Asp	Phe	Gln	Arg	Arg	35	40	45	
Arg	Leu	Arg	Gly	Cys	Arg	Asn	Leu	Tyr	Lys	Lys	Asp	Leu	Leu	Gly	His	50	55	60	
Phe	Gly	Cys	Val	Asn	Ala	Ile	Glu	Phe	Ser	Asn	Asn	Gly	Gly	Gln	Trp	65	70	75	80
Leu	Val	Ser	Gly	Gly	Asp	Asp	Arg	Arg	Val	Leu	Leu	Trp	His	Met	Glu	85	90	95	
Gln	Ala	Ile	His	Ser	Arg	Val	Lys	Pro	Ile	Gln	Leu	Lys	Gly	Glu	His	100	105	110	
His	Ser	Asn	Ile	Phe	Cys	Leu	Ala	Phe	Asn	Ser	Gly	Asn	Thr	Lys	Val	115	120	125	
Phe	Ser	Gly	Gly	Asn	Asp	Glu	Gln	Val	Ile	Leu	His	Asp	Val	Glu	Ser	130	135	140	
Ser	Glu	Thr	Leu	Asp	Val	Phe	Ala	His	Glu	Asp	Ala	Val	Tyr	Gly	Leu	145	150	155	160
Ser	Val	Ser	Pro	Val	Asn	Asp	Asn	Ile	Phe	Ala	Ser	Ser	Ser	Asp	Asp	165	170	175	
Gly	Arg	Val	Leu	Ile	Trp	Asp	Ile	Arg	Glu	Ser	Pro	His	Gly	Glu	Pro	180	185	190	
Phe	Cys	Trp	Ala	Asn	Tyr	Pro	Ser	Ala	Phe	His	Ser	Val	Met	Phe	Asn	195	200	205	
Pro	Val	Glu	Pro	Arg	Leu	Leu	Ala	Pro	Ala	Asn	Ser	Lys	Glu	Gly	Val	210	215	220	
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<210> 5879

<211> 1555

<212> DNA

<213> Homo sapiens

<400> 5879

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tccatttggg gtgctgggga acgttatcc cagagaggtg cctcagtga ggcgctgtgt
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<210> 5880

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5880

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35 40 45
Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met
50 55 60
Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
65 70 75 80
His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly
85 90 95
Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
100 105 110
His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
115 120 125
Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu
130 135 140
Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr
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165 170 175
Leu Trp Glu Ser Thr Gly Leu Arg Ala
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<210> 5881

<211> 327

<212> DNA

<213> Homo sapiens

<400> 5881

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120
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<210> 5882

<211> 109

<212> PRT

<213> Homo sapiens

<400> 5882

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          20          25          30
Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
          35          40          45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
          50          55          60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65          70          75          80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
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Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
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<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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180
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240
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300
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360
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480
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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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		35					40					45					
Phe	Ser	Thr	Arg	Thr	Val	Met	Leu	Gly	Thr	Ala	Ala	Val	Lys	Ala	Gln		
	50					55					60						
Ile	Trp	Asp	Thr	Ala	Gly	Val											
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<210> 5885

<211> 1905

<212> DNA

<213> Homo sapiens

<400> 5885

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 acgtagacgg tagacagttc gcgtgcgttt ccttcgccta cttggcctac atgccttctg
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 420
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<210> 5886

<211> 265

<212> PRT

<213> Homo sapiens

<400> 5886

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Asn Gly Arg Arg Ala Pro Cys Val Leu Asn Leu Tyr Tyr Glu Arg Arg					
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Trp Glu Gln Ser Leu Arg Ala Leu Arg Glu Glu Leu Gly Ile Thr Ala					
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<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

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<210> 5888

<211> 166

<212> PRT

<213> Homo sapiens

<400> 5888

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Pro	Glu	Tyr	Met	Trp	Phe	Leu	Leu	Tyr	Cys	Glu	Gly	Thr	Arg	Phe	Thr
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			100					105					110		
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<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

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<210> 5890

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

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			20					25					30		
Glu	Cys	Ser	Gly	Thr	Ile	Thr	Ala	His	Cys	Ser	Leu	Asp	Phe	Pro	Gly
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Glu	Glu	Arg	Gln	Gln	His	Gly	Glu	Cys	Pro	Val	Pro	Thr	Pro	Trp	Lys

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Ala	Leu	Gly	Cys	Pro	Thr	Leu	Gly	Ala	Thr	Ala	Arg	Arg	Gly	Arg	Ser
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<210> 5891

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5891

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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

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<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

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Arg Arg Lys Lys Lys Lys Ala Lys Arg Thr Thr Asn Trp Lys Ile Ile			
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Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys			
65	70	75	80
Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe			
85	90	95	
Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser			
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Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met			
115	120	125	
Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly			
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Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala			
145	150	155	160
Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro			
165	170	175	
Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met			
180	185	190	
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp			
195	200	205	
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala			
210	215	220	
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val			
225	230	235	240
Asp Thr His Leu Gln His Leu Lys Ser Pro Ser Gln Gly Ser Pro Ile			
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<210> 5895

<211> 2748

<212> DNA

<213> Homo sapiens

<400> 5895

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<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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			20					25					30		
Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
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Thr	Ala	Thr	Tyr	Pro	Val	Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu
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Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
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Leu	Val	Ser	Thr	Ser	Asn	Thr	Val	Thr	Ala	Ala	His	Ile	Lys	Lys	Phe
				85					90				95		
Thr	Phe	Val	Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe
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Asp	Phe	Ala	Phe	Ala	Glu	Leu	Cys	Val	Val	Pro	Leu	Arg	Ile	Phe	Ser
	130				135						140				
Phe	Phe	Pro	Val	Pro	Val	Thr	Val	Arg	Ala	His	Leu	Thr	Gly	Trp	Leu
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Met	Thr	Leu	Lys	Lys	Thr	Phe	Val	Leu	Ala	Pro	Ser	Ser	Val	Leu	Arg
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<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

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Glu	Ile	Cys	Ala	Asp	Glu	Phe	Pro	Gly	Ser	Ser	Ala	Thr	Tyr	Arg	Ile
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Leu	Glu	Val	Gly	Cys	Gly	Val	Gly	Asn	Thr	Val	Phe	Pro	Ile	Leu	Gln
	50				55						60				
Thr	Asn	Asn	Asp	Pro	Gly	Leu	Phe	Val	Tyr	Cys	Cys	Asp	Phe	Ser	Ser
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Thr	Ala	Ile	Glu	Leu	Val	Gln	Thr	Asn	Ser	Glu	Tyr	Asp	Pro	Ser	Arg
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Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
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Asp Met Ala Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn		160
	165	170
Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu		175
	180	185
Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn		190
	195	200
Leu Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met		205
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<210> 5899

<211> 1589

<212> DNA

<213> Homo sapiens

<400> 5899

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<210> 5900

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

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Ile	Pro	Thr	Ile	Ile	Arg	Asp	Glu	Glu	Leu	Lys	Thr	Arg	Gly	Phe	Gly
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Thr	Thr	Met	Pro	Gly	Met	Lys	Arg	Asp	Cys	Gly	Gly	Ala	Ala	Ala	Val
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Leu	Gly	Ala	Phe	Arg	Ala	Ala	Ile	Lys	Gln	Gly	Phe	Lys	Asp	Asn	Leu
			115				120						125		
His	Ala	Val	Phe	Cys	Leu	Ala	Glu	Asn	Ser	Val	Gly	Pro	Asn	Ala	Thr
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Arg	Pro	Asp	Asp	Ile	His	Leu	Leu	Tyr	Ser	Gly	Lys	Thr	Val	Glu	Ile
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Leu	Thr	Gly	Ala	Gln	Gly	Ile	Ala	Thr	Gly	Lys	Tyr	His	Ala	Ala	Val

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Lys Cys Gly Asp Leu Val His Pro Leu Val Tyr Cys Pro Glu Leu His		
225	230	235
Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn Ser Val Ala		
245	250	255
Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe Ile Ala Ser		
260	265	270
His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu Asp Ile Ala		
275	280	285
Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly Val Ala Leu		
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Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu Leu Asn Leu		
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<210> 5901

<211> 984

<212> DNA

<213> Homo sapiens

<400> 5901

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<213> Homo sapiens

<400> 5902

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<211> 308

<212> PRT

<213> Homo sapiens

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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 5906

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<211> 454

<212> PRT

<213> Homo sapiens

<400> 5908

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 50           55           60
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 65           70           75           80
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His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
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Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 5919

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<213> Homo sapiens

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<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

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Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
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Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
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Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
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Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
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Ser	Trp	Thr	Asn	Asp	Gly	Gln	Tyr	Leu	Ala	Leu	Gly	Met	Phe	Asn	Gly
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Pro	Glu	Glu	Glu	Asp	Asp	Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg
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Pro Cys Cys Ile Ser Tyr	Phe Thr Lys Gly Glu Tyr	Ile Leu Leu Gly
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Gly Ser Asp Lys Gln Val	Ser Leu Phe Thr Lys Asp	Gly Val Arg Leu
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Gly Thr Val Gly Glu Gln	Asn Ser Trp Val Trp Thr	Cys Gln Ala Lys
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Pro Asp Ser Asn Tyr Val	Val Val Gly Cys Gln Asp	Gly Thr Ile Ser
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Phe Tyr Gln Leu Ile Phe	Ser Thr Val His Gly Leu	Tyr Lys Asp Arg
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Tyr Ala Tyr Arg Asp Ser	Met Thr Asp Val Ile Val	Gln His Leu Ile
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Thr Glu Gln Lys Val Arg	Ile Lys Cys Lys Glu Leu	Val Lys Lys Ile
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Ala Ile Tyr Arg Asn Arg	Leu Ala Ile Gln Leu Pro	Glu Lys Ile Leu
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Ile Tyr Glu Leu Tyr Ser	Glu Asp Leu Ser Asp Met	His Tyr Arg Val
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Lys Glu Lys Ile Ile Lys	Lys Phe Glu Cys Asn Leu	Leu Val Val Cys
385	390	395
Ala Asn His Ile Ile Leu	Cys Gln Glu Lys Arg Leu	Gln Cys Leu Ser
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Tyr Ile Lys Val Ile Gly	Gly Gly Pro Pro Gly Arg	Glu Gly Leu Leu Val
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Gly Leu Lys Asn Gly Gln	Ile Leu Lys Ile Phe Val	Asp Asn Leu Phe
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Ala Ile Val Leu Leu Lys	Gln Ala Thr Ala Val Arg	Cys Leu Asp Met
465	470	475
Ser Ala Ser Arg Lys Lys	Leu Ala Val Val Asp Glu	Asn Asp Thr Cys
485	490	495
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Phe Cys Leu His Val Phe	Ser Ile Ser Ala Val Glu	Val Pro Gln Ser
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Ala Pro Met Tyr Gln Tyr	Leu Asp Arg Lys Leu Phe	Lys Glu Ala Tyr
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Met Glu Ala Leu Glu Gly	Leu Asp Phe Glu Thr Ala	Lys Lys Ala Phe
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5103

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Arg Arg Asp Val Leu Ile Lys Arg Trp Pro Pro Pro Leu Arg Trp Gln		
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Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser		
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Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu		
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<210> 5923

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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<211> 146

<212> PRT

<213> Homo sapiens

<400> 5924

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Lys	Met	Lys	Asp	Ile	Lys	Thr	Ile	Phe	Ser	Glu	Phe	Ile	Thr	Ile	Glu
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	50		55		60										
Asn	Ile	Gln	Asn	Ile	Asp	Glu	Asp	Glu	Asp	Leu	Glu	Val	Phe	Arg	Asn
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Ser	Leu	Tyr	Ala	Pro	Asp	Tyr	Ser	Ser	Arg	Leu	Asp	Ile	Val	Arg	Ala
			85		90					95					
Asn	Ser	Lys	Ser	Pro	Leu	Gln	Arg	Ser	Leu	Ser	Ala	Lys	Cys	Val	Ser
	100		105		110										
Gly	Thr	Gly	Gln	Val	Ser	Thr	Cys	Arg	Leu	Arg	Lys	Asp	Gln	Gln	Ala
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Glu	Asp	Asp	Glu	Asp	Asp	Glu	Leu	Asp	Val	Thr	Glu	Glu	Glu	Asn	Phe
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<210> 5925

<211> 4538

<212> DNA

<213> Homo sapiens

<400> 5925

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<210> 5926

<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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			20					25					30		
Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro
		35					40					45			
Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala
	50					55					60				
Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys
65					70				75					80	
Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser
			85					90						95	
Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln
		100						105					110		
Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys
		115					120					125			
Gly	Leu	Ala	Leu	Ser	Pro	Val	Thr	Arg	Pro	Pro	Gln	Pro	Arg	Leu	Thr
	130					135					140				
Phe	Val	His	Pro	Lys	Pro	Val	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Lys	Gln
145					150					155				160	
Pro	His	Lys	Ile	Val	Pro	Ala	Pro	Lys	Pro	Glu	Pro	Val	Ser	Leu	Val
			165					170						175	
Leu	Lys	Asn	Ala	Arg	Ile	Ala	Pro	Ala	Ala	Phe	Ser	Gly	Gln	Pro	Gln
		180						185					190		
Ala	Val	Ile	Met	Thr	Ser	Gly	Pro	Leu	Lys	Arg	Glu	Gly	Met	Leu	Ala
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Arg	Ala	Pro	Gly	Val	Pro	Glu	Phe	His	Ser	Ser	Ile	Leu	Val	Thr	Asp
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Pro	Ser	Thr	Ala	Gln	Asp	Pro	Leu	Gly	Lys	Gly	Glu	Gln	Val	Pro	Leu

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His Gly Gly Ser Pro Gln Val Thr Val Thr Gly Pro Ser Arg Asp Cys					
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Pro Asn Ser Gly Gln Ala Ser Pro Cys Ala Ser Glu Gln Ser Pro Ser					
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Pro Gln Ser Pro Gln Asn Asn Cys Ser Gly Lys Ser Asp Pro Lys Asn					
305		310		315	320
Val Ala Ala Leu Lys Asn Arg Gln Met Lys His Ile Ser Ala Glu Gln					
	325		330		335
Lys Arg Arg Phe Asn Ile Lys Met Cys Phe Asp Met Leu Asn Ser Leu					
	340		345		350
Ile Ser Asn Asn Ser Lys Leu Thr Ser His Ala Ile Thr Leu Gln Lys					
	355		360		365
Thr Val Glu Tyr Ile Thr Lys Leu Gln Gln Glu Arg Gly Gln Met Gln					
370		375		380	
Glu Glu Ala Arg Arg Leu Arg Glu Glu Ile Glu Glu Leu Asn Ala Thr					
385		390		395	400
Ile Ile Ser Cys Gln Gln Leu Leu Pro Ala Thr Gly Val Pro Val Thr					
	405		410		415
Arg Arg Gln Phe Asp His Met Lys Asp Met Phe Asp Glu Tyr Val Lys					
	420		425		430
Thr Arg Thr Leu Gln Asn Trp Lys Phe Trp Ile Phe Ser Ile Ile Ile					
	435		440		445
Lys Pro Leu Phe Glu Ser Phe Lys Gly Met Val Ser Thr Ser Ser Leu					
	450		455		460
Glu Glu Leu His Arg Thr Ala Leu Ser Trp Leu Asp Gln His Cys Ser					
465		470		475	480
Leu Pro Ile Leu Arg Pro Met Val Leu Ser Thr Leu Arg Gln Leu Ser					
	485		490		495
Thr Ser Thr Ser Ile Leu Thr Asp Pro Ala Gln Leu Pro Glu Gln Ala					
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Ser Lys Ala Val Thr Arg Ile Gly Lys Arg Leu Gly Glu Ser					
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<210> 5927

<211> 1786

<212> DNA

<213> Homo sapiens

<400> 5927

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300
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1786

<210> 5928

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5928

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Leu Asp Leu Pro Ser Leu Thr Ser Leu Leu Ser Glu Lys Ala Lys Glu			
35	40	45	
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu			
50	55	60	
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser			
65	70	75	80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala			
85	90	95	
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly			
100	105	110	
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr			
115	120	125	
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln			
130	135	140	
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His			
145	150	155	160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala			
165	170	175	
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val			
180	185	190	
Ser Thr Met Glu His Tyr Tyr Thr Ala Phe			
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

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120

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gcggagctga gcatggggcc agagctgccc accagcccgc tggccatgga gtatgtcaac
240

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300

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360

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420

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480

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606

<210> 5930
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 5930
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 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg
 35 40 45
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
 50 55 60
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
 65 70 75 80
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
 85 90 95
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
 100 105 110
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
 115 120 125
 Gly Ala His His His His His His His Pro His Pro His His Ala
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<210> 5931
 <211> 478
 <212> DNA
 <213> Homo sapiens

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 120
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 300
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<210> 5932
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 5932

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 20 25 30
 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln
 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
 65 70 75 80
 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu
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<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 5933

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<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

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		20				25						30			
Ser	Lys	Val	Arg	Glu	Gln	Leu	Glu	Gln	Glu	Leu	Glu	Glu	Leu	Thr	Ala
		35				40						45			
Ser	Leu	Phe	Glu	Glu	Ala	His	Lys	Met	Val	Arg	Glu	Ala	Asn	Met	Lys
		50				55						60			
Gln	Ala	Ala	Ser	Glu	Lys	Gln	Leu	Lys	Glu	Ala	Arg	Gly	Lys	Ile	Asp
65				70					75					80	
Met	Leu	Gln	Ala	Glu	Val	Thr	Ala	Leu	Lys	Thr	Leu	Val	Ile	Thr	Ser
		85						90						95	
Thr	Pro	Ala	Ser	Pro	Asn	Arg	Glu	Leu	His	Pro	Gln	Leu	Leu	Ser	Pro

100 105 110
 Thr Lys Ala Gly Pro Arg Lys Gly His Ser Arg His Lys Ser Thr Ser
 115 120 125
 Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr
 130 135 140
 Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe
 145 150 155 160
 Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu
 165 170 175
 Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met
 180 185 190
 Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu
 195 200 205
 Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala
 210 215 220
 Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr
 225 230 235 240
 Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr
 245 250 255
 Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe
 260 265 270
 Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala
 275 280 285
 Glu Pro Met Phe Trp Glu Ile Met Arg Leu Arg Lys Glu Met Ser Leu
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<210> 5935

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 5935

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 <211> 154
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Tyr His Pro Thr Pro Ser Gln Thr Arg Leu Ala Thr Gln Leu Thr Glu
 50 55 60
 Glu Glu Gln Ile Arg Ile Ala Gln Arg Ile Gly Leu Ile Gln His Leu
 65 70 75 80
 Pro Lys Gly Val Tyr Asp Pro Gly Arg Asp Gly Ser Glu Lys Lys Ile
 85 90 95
 Arg Glu Cys Val Ile Cys Met Met Asp Phe Val Tyr Gly Asp Pro Ile
 100 105 110
 Arg Phe Leu Pro Cys Met His Ile Tyr His Leu Asp Cys Ile Asp Asp
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 Trp Leu Met Arg Ser Phe Thr Cys Pro Ser Cys Met Glu Pro Val Asp
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 Ala Ala Leu Leu Ser Ser Tyr Glu Thr Asn
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<210> 5937
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 <212> DNA
 <213> Homo sapiens

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<210> 5938

<211> 406

<212> PRT

<213> Homo sapiens

<400> 5938

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          20           25           30
Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
          35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
          50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
          85           90           95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
          100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
          115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
          130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145           150           155           160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
          165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
          180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
          195          200          205
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225           230           235           240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
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Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
          260          265          270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
          275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
          290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305           310           315           320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
          325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
          340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
          355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
          370          375          380
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385           390           395           400
Val Ile Glu Asp Lys Asn

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405

<210> 5939

<211> 795

<212> DNA

<213> Homo sapiens

<400> 5939

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<210> 5940

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5940

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Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
35 40 45
Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
50 55 60
Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
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Thr Ala Pro Gly Gly Pro Ala Gly Ala Thr Ala Thr Phe Ser Lys Ala

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90

95

<210> 5941
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<212> DNA
<213> Homo sapiens

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5122

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<210> 5942

<211> 89

<212> PRT

<213> Homo sapiens

<400> 5942

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			20					25					30		
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Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu

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Thr Lys Pro Gly Ile Leu Cys Cys Phe Gln Asn Glu Phe Glu Asn Pro
  50      55      60
Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp
  65      70      75      80
Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe
      85      90      95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro
      100      105      110
Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg
      115      120      125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys
      130      135      140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu
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<210> 5945

<211> 869

<212> DNA

<213> Homo sapiens

<400> 5945

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln
 50 55 60
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
 65 70 75 80
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu
 85 90 95
 Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys Leu Val
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 Glu Gln Leu Lys Glu Glu Arg Glu Leu
 115 120

<210> 5947
 <211> 2283
 <212> DNA
 <213> Homo sapiens

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2283


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      35              40              45
Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg
      50              55              60
Ser Arg Ser Lys Glu Arg Ala Tyr Ala Arg Arg Asp
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<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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			85					90						95	
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Lys	Ala	Val	Tyr	Glu	Gly	Ile	Val	Val	Asp	Val	Pro	Phe	Ala	Ser	Phe
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Phe	Leu	Ser	Gln	Leu	Leu	Gly	His	His	His	Ser	Val	Phe	Tyr	Ser	Ser
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Val	Asp	Glu	Leu	Pro	Ser	Leu	Asp	Ser	Glu	Phe	Tyr	Lys	Asn	Leu	Thr
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Ser	Ile	Lys	Arg	Tyr	Asp	Gly	Asp	Ile	Thr	Asp	Leu	Gly	Leu	Thr	Leu
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Ser	Tyr	Asp	Glu	Asp	Val	Met	Gly	Gln	Leu	Val	Cys	His	Glu	Leu	Ile
	180						185					190			
Pro	Gly	Gly	Lys	Thr	Ile	Pro	Val	Thr	Asn	Glu	Asn	Lys	Ile	Ser	Tyr
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Ile	His	Leu	Met	Ala	His	Phe	Arg	Met	His	Thr	Gln	Ile	Lys	Asn	Gln

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225	230	235
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	245	250
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr		255
	260	265
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile		270
	275	280
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		285
	290	295
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		300
305	310	315
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		320
	325	330
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		335
	340	345
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		350
	355	360
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu		365
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<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

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<210> 5952

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952

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Ala	Pro	Arg	Phe	Pro	Pro	Gly	Gly	Phe	Ala	Ala	Gly	Arg	Thr	Met	Leu
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	50				55					60					
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Arg	Gly	Glu	Gly	Val	Glu	Val	Val	Gln	Asn	Glu	Pro	Phe	Glu	Asp	Pro
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His	His	Gly	Asn	Gly	Gln	Phe	Thr	Glu	Lys	Arg	Val	Tyr	Leu	Asn	Ser

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Lys	Leu	Pro	Ser	Trp	Ala	Arg	Ala	Val	Val	Pro	Lys	Ile	Phe	Tyr	Val				
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Thr	Glu	Lys	Ala	Trp	Asn	Tyr	Tyr	Pro	Tyr	Thr	Ile	Thr	Glu	Tyr	Thr				
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Cys	Ser	Phe	Leu	Pro	Lys	Phe	Ser	Ile	His	Ile	Glu	Thr	Lys	Tyr	Glu				
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Val	Glu	Arg	Glu	Val	Cys	Phe	Ile	Asp	Ile	Ala	Cys	Asp	Glu	Ile	Pro				
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Pro	Ile	Met	Cys	Ser	Tyr	Lys	Leu	Val	Thr	Val	Lys	Phe	Glu	Val	Trp				
225					230					235					240				
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			260					265					270						
Tyr	Asp	Met	Thr	Met	Asp	Glu	Val	Arg	Glu	Phe	Glu	Arg	Ala	Thr	Gln				
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Glu	Ala	Thr	Asn	Lys	Lys	Ile	Gly	Ile	Phe	Pro	Pro	Ala	Ile	Ser	Ile				
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Ser	Ser	Ile	Pro	Leu	Leu	Pro	Ser	Ser	Val	Arg	Ser	Ala	Pro	Ser	Ser				
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Ala	Pro	Ser	Thr	Pro	Leu	Ser	Thr	Asp	Ala	Pro	Glu	Phe	Leu	Ser	Val				
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Pro	Lys	Asp	Arg	Pro	Arg	Lys	Lys	Ser	Ala	Pro	Glu	Thr	Leu	Thr	Leu				
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Pro	Asp	Pro	Glu	Lys	Lys	Ala	Thr	Leu	Asn	Leu	Pro	Gly	Met	His	Ser				
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<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

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<210> 5954

<211> 152

<212> PRT

<213> Homo sapiens

<400> 5954

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			20					25						30	
Cys	Leu	Glu	Arg	Met	Arg	Asn	Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr
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65					70				75					80	
Asn	Cys	Pro	Glu	Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala
			85					90					95		
Val	Leu	Glu	Glu	Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Glu	Gln	Ser	Ile
		100					105					110			
Ile	Ser	Glu	Tyr	Glu	Lys	Ser	Leu	Gln	Phe	Asp	Glu	Lys	Cys	Leu	Ser
	115					120				125					
Ile	Met	Leu	Ala	Glu	Trp	Glu	Ala	Asn	Pro	Leu	Ile	Cys	Pro	Val	Cys
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<210> 5955

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5955

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<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

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<210> 5957
<211> 855

<212> DNA

<213> Homo sapiens

<400> 5957

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 420
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 720
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<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

Met	Ala	Glu	Ser	Leu	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Tyr	Lys	Leu	Val
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		20						25					30		
Met	Arg	Asn	Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly
		35					40					45			
Ser	Ser	Gly	Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val
	50					55				60					
Met	Glu	Glu	Glu	Trp	Asn	Ala	Leu	Gln	Ser	Val	Glu	Asn	Cys	Pro	Glu
65					70				75					80	
Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu
			85					90					95		
Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Gly	Leu						

100

105

<210> 5959
 <211> 830
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 300
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 360
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 480
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 540
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 660
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 720
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 830

<210> 5960
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 5960
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 20 25 30
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
 35 40 45
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
 50 55 60
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
 65 70 75 80
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

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<210> 5962
<211> 114
<212> PRT
<213> Homo sapiens
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<400> 5962

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 20 25 30
 Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
 35 40 45
 Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
 50 55 60
 Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
 65 70 75 80
 Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
 85 90 95
 Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
 100 105 110
 Pro Ser

<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

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 120
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 180
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 300
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 420
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 480
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 720
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 780
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 840
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 900

ggaaagaaat ccattctgctc atgaagcact tctgaaaata taggtgattg cctgaatgtc
 960
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 1020
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 1080
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 1140
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 1260
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<210> 5964
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 5964
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 20 25 30
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val
 35 40 45
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
 50 55 60
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
 65 70 75 80
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
 85 90 95
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
 100 105 110
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
 115 120 125
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
 130 135 140
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu
 145 150 155 160
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
 165 170 175
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
 180 185 190
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu
 195 200 205
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<210> 5965
 <211> 1011
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 300
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 360
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 420
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 480
 atcacaagcg gtgtgggtgt gtgtcagtgt ggctgtcca tcccatctca ttcttctgag
 540
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 600
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 720
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 780
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 840
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 900
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 1011

<210> 5966

<211> 233

<212> PRT

<213> Homo sapiens

<400> 5966

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Ser	Leu	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Tyr	Lys	Leu	Val	Gly	Ser	Pro
		20						25					30		
Pro	Trp	Lys	Glu	Ala	Phe	Arg	Gln	Arg	Cys	Leu	Glu	Arg	Met	Arg	Asn
		35					40					45			
Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly	Ser	Ser	Gly
	50					55				60					
Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val	Met	Glu	Glu
65				70						75				80	
Glu	Trp	Asn	Ala	Leu	Gln	Xaa	Gln	Trp	Xaa	Asn	Cys	Pro	Glu	Asp	Leu

	85		90		95										
Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu	Ile	Gln
	100						105						110		
Gln	Glu	Leu	Ile	Asn	Gln	Glu	Gln	Ser	Ile	Ile	Ser	Glu	Tyr	Glu	Lys
	115						120					125			
Ser	Leu	Gln	Phe	Asp	Glu	Lys	Cys	Leu	Ser	Ile	Met	Leu	Ala	Glu	Trp
	130						135				140				
Glu	Ala	Asn	Pro	Leu	Ile	Cys	Pro	Val	Cys	Thr	Lys	Tyr	Asn	Leu	Arg
	145					150				155				160	
Ile	Thr	Ser	Gly	Val	Val	Val	Cys	Gln	Cys	Gly	Leu	Ser	Ile	Pro	Ser
			165						170					175	
His	Ser	Ser	Glu	Leu	Thr	Glu	Gln	Lys	Leu	Arg	Ala	Cys	Leu	Glu	Gly
			180					185					190		
Ser	Ile	Asn	Glu	His	Ser	Ala	His	Cys	Pro	His	Thr	Pro	Glu	Phe	Ser
	195						200					205			
Val	Thr	Gly	Gly	Thr	Glu	Glu	Lys	Ser	Ser	Leu	Leu	Met	Ser	Cys	Leu
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Ala	Cys	Asp	Thr	Trp	Ala	Val	Ile	Leu							
	225				230										

<210> 5967

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5967

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 180
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 300
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 420
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 480
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 540
 aatcggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctctct
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 660
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 720
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 aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
 840

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 1020
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 1680
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<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

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Ser	Met	Phe	Leu	Asn	Thr	Leu	Thr	Pro	Lys	Phe	Tyr	Val	Ala	Leu	Thr
			20					25					30		
Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	Trp	Trp
		35					40					45			
Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	Val	Ser
	50				55					60					
His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser	Ser	Asn	Asn
65				70					75					80	
Ser	Asn	Ser	Ser	Asn	Gly	Asp	Ser	Asp	Ser	Asn	Arg	Gln	Ser	Val	Ser
			85					90					95		
Glu	Cys	Lys	Val	Trp	Arg	Asn	Pro	Leu	Asn	Leu	Phe	Arg	Gly	Ala	Glu

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<210> 5969
<211> 429
<212> DNA
<213> Homo sapiens
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5146

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 240
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 300
 ccctgccccca gcgtgaagca cgggggatgag tggggggaac cctcacgctg cgatggcggc
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 429

<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

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Gln	Asn	Gly	Gln	Leu	Gly	Gly	Gly	Glu	Gly	Val	Pro	Asp	Leu	Gln	Pro
			20					25					30		
Gly	Val	Leu	Ala	Ser	Gln	Ala	Met	Ile	Glu	Lys	Ile	Leu	Ser	Glu	Asp
		35					40					45			
Pro	Arg	Trp	Gln	Asp	Ala	Asn	Phe	Val	Leu	Gly	Ser	Tyr	Lys	Thr	Glu
	50					55					60				
Gln	Cys	Pro	Lys	Pro	Pro	Arg	Leu	Cys	Arg	Gln	Gly	Tyr	Ala	Cys	Pro
65				70					75					80	
His	Tyr	His	Asn	Ser	Arg	Asp	Arg	Arg	Arg	Asn	Pro	Arg	Arg	Phe	Gln
			85					90						95	
Tyr	Arg	Ser	Thr	Pro	Cys	Pro	Ser	Val	Lys	His	Gly	Asp	Glu	Trp	Gly
			100					105					110		
Glu	Pro	Ser	Arg	Cys	Asp	Gly	Gly	Asp	Gly	Cys	Gln	Tyr	Cys	His	Ser
		115				120					125				
Arg	Thr	Glu	Gln	Gln	Phe	His	Pro	Glu	Ile	Tyr	Lys	Ser	Thr	Lys	
	130					135						140			

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

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 565

<210> 5972
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 5972
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 Cys Pro Asn Arg Gln His Pro Tyr Phe Ile Asp Gly His Pro His Phe
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 Arg Asp Ser Ser Leu Leu Tyr Pro His Phe Thr Gly Glu Gly Ile Glu
 35 40 45
 Ala Gln Lys Val Arg Ser Leu Leu Gln Asp Asp Gln Leu Asn Gln Asn
 50 55 60
 Phe Arg Ala Ser Asn Thr Lys Cys Val Pro Leu Ser Ser Val Ser His
 65 70 75 80
 Leu Leu Pro Arg Gly Ser Ala Ser Ser Leu Trp Pro Leu Ser Ile Leu
 85 90 95
 Pro Pro Thr Leu Leu Pro Ala Ser
 100

<210> 5973
 <211> 797
 <212> DNA
 <213> Homo sapiens

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 180
 gccgtcactc acatccgggg cctcactca catccgggac cctcatccgg ggctctcacc
 240
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 300
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 360
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 660
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 797

<210> 5974
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 5974
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 His Pro Gly Pro Ser Leu Thr Ser Gly Ala Leu Thr His Ile Arg Asp
 35 40 45
 Pro His Pro Gly Leu Ser Pro Thr Ser Gly Thr Leu Met Pro Gly Arg
 50 55 60
 Arg Arg Gly Gly Pro Ser Phe Gly Thr Pro Ala Leu Arg Arg Arg Lys
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 Cys His Arg Glu Ala Pro Ala Ser Gly Leu Ser Thr Ala Ala Arg Glu
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<210> 5975
 <211> 2175
 <212> DNA
 <213> Homo sapiens

<400> 5975
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 aagcaggacc ttgcttatga acgtcagtat gaacagcaaa cctatcaggt gatccctgag
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 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
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 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
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 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
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 130 135 140
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 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
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 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
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 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
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<210> 5978
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 5978
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 35 40 45
 Thr Thr Trp Arg Xaa Val Phe Thr Lys Asn Thr Lys Ile Ser Trp Ala
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 Trp Trp Tyr Thr Pro Val Ile Pro Ala Thr Gln Glu Ala
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<210> 5979
 <211> 1095
 <212> DNA
 <213> Homo sapiens

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<210> 5980
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 5980
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 35 40 45
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
 50 55 60
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
 65 70 75 80
 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
 85 90 95
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
 100 105 110
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
 115 120 125
 Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg
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<210> 5981
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 5981
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<210> 5982

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5982

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Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
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Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala
		35				40						45			
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
	50				55					60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
65				70				75						80	
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Gly Lys

<210> 5983

<211> 790

<212> DNA

<213> Homo sapiens

<400> 5983

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120

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<210> 5984

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5984

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Glu	Thr	Pro	Ala	His	Asp	Arg	Ala	Glu	Pro	Asn	Ser	Gln	Leu	Asp	Ser
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Thr	His	Ser	Gly	Arg	Gly	Thr	Met	Tyr	Ser	Ser	Trp	Val	Lys	Ser	Pro
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Asp	Arg	Thr	Gly	Val	Asn	Phe	Ser	Val	Asn	Ser	Asn	Leu	Arg	Asp	Leu
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Thr	Val	Asn	Asp	Asn	Leu	Ile	Asp	Gly	Asn	Cys	Thr	Pro	Gln	Asn	Pro
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180

185

<210> 5985

<211> 737

<212> DNA

<213> Homo sapiens

<400> 5985

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<210> 5986

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5986

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			20					25					30		
Asp	Leu	Leu	Gln	Asn	Pro	Tyr	Phe	Ser	Lys	Leu	Leu	Leu	Asn	Leu	Ser
			35				40						45		
Gln	His	Val	Asp	Glu	Ser	Gly	Leu	Ser	Leu	Thr	Leu	Ala	Lys	Glu	Gln
			50			55							60		
Ala	Gln	Ala	Trp	Lys	Glu	Val	Arg	Leu	His	Lys	Thr	Thr	Trp	Leu	Arg
65					70					75				80	
Ser	Glu	Ile	Leu	His	Arg	Val	Ile	Gln	Glu	Leu	Leu	Val	Asp	Tyr	Tyr
				85					90					95	
Val	Lys	Ile	Gln	Asp	Thr	Asn	Val	Thr	Ser	Glu	Asp	Lys	Lys	Phe	His

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115		120		125	
Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys					
130		135		140	
Ala Asp Leu Leu Glu Leu Met Pro Leu Ser Glu Val Gly Gly Glu Ile					
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Leu Glu Pro Asn Lys					
165					

<210> 5987

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5987

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 Met Ala Val Phe Ser Tyr Leu Ser His Gln Asp Leu Cys Val Cys Met
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Val	Glu	Gly	Leu	Lys	Asp	Ala	Gln	Met	Arg	Asp	Leu	Leu	Ser	Pro	Pro
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<211> 1528

<212> DNA

<213> Homo sapiens

<400> 5995

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 Arg Gln Phe Val Pro Leu Ala Ser Gly Gln Ala Gln Val Val Leu Ser
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<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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Ser	Gln	Leu	Asp	Gly	Val	Arg	Thr	Gly	Leu	Ser	Gln	Leu	His	Asn	Ala
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Asp	Ala	Val	Val	Gln	His	Ser	Gln	Leu	Ala	Ala	Ala	Val	Glu	Asn	Leu
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Glu Leu Ala Pro Glu Val	Asp Val Gly Thr Leu	Glu Pro Leu Leu Ser
370	375	380
Pro His Val Val Ser Glu	Leu Leu Asp Thr Tyr	Met Ser Thr Leu Thr
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Ser Asn Ile Ile Ala Trp	Leu Arg Lys Ala Leu	Glu Thr Asp Lys Lys
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Ala Gln Leu Tyr Lys Glu	Glu His Leu Arg Asn	Arg Gln His Pro His
485	490	495
Cys Tyr Val Gln Tyr Met	Ile Ala Ile Ile Asn	Asn Cys Gln Thr Phe
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Lys Glu Ser Ile Val Ser	Leu Lys Arg Lys Tyr	Leu Lys Asn Glu Val
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Glu Glu Gly Val Ser Pro	Ser Gln Pro Ser Met	Asp Gly Ile Leu Asp
530	535	540
Ala Ile Ala Lys Glu Gly	Cys Ser Gly Leu Leu	Glu Glu Val Phe Leu
545	550	555
Asp Leu Glu Gln His Leu	Asn Glu Leu Met Thr	Lys Lys Trp Leu Leu
565	570	575
Gly Ser Asn Ala Val Asp	Ile Ile Cys Val Thr	Val Glu Asp Tyr Phe
580	585	590
Asn Asp Phe Ala Lys Ile	Lys Lys Pro Tyr Lys	Lys Arg Met Thr Ala
595	600	605
Glu Ala His Arg Arg Val	Val Val Glu Tyr Leu	Arg Ala Val Met Gln
610	615	620
Lys Arg Ile Ser Phe Arg	Ser Pro Glu Glu Arg	Lys Glu Gly Ala Glu
625	630	635
Lys Met Val Arg Glu Ala	Glu Gln Arg Arg Phe	Leu Phe Arg Lys Leu
645	650	655
Ala Ser Gly Phe Gly Glu	Asp Val Asp Gly Tyr	Cys Asp Thr Ile Val
660	665	670
Ala Val Ala Glu Val Ile	Lys Leu Thr Asp Pro	Ser Leu Leu Tyr Leu
675	680	685
Glu Val Ser Thr Leu Val	Ser Lys Tyr Pro Asp	Ile Arg Asp Asp His
690	695	700
Ile Gly Ala Leu Leu Ala	Val Arg Gly Asp Ala	Ser Arg Asp Met Lys

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Gln Thr Ile Met Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro						
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	740		745		750	
Ala Lys Leu Leu Lys						
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<210> 6001
 <211> 2490
 <212> DNA
 <213> Homo sapiens

<400> 6001
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<210> 6002

<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

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 35 40 45
 Trp Leu Asp Ala Gln Ser Gly Leu Ala Ser Ala Pro Val Ser Gly Ala
 50 55 60
 Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro
 65 70 75 80
 Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys
 85 90 95
 Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe
 100 105 110
 Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val
 115 120 125
 Gln Val Phe Ala Pro Ala Asn Ala Leu Pro Ala Arg Ser Glu Ala Ala
 130 135 140
 Ala Val Gln Pro Val Ile Gly Ile Ser Gln Arg Val Arg Met Asn Ser
 145 150 155 160
 Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr
 165 170 175
 Met Met Val Ile Ile Ile Ala Ile Gly Ala Gly Ile Ile Leu Gly Tyr
 180 185 190
 Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val
 195 200 205
 Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr
 210 215 220
 Asn Pro Thr Cys Glu Ile Val Asp Glu Lys Thr Val Val Val His Thr
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 Ser Gln Thr Pro Val Asp Pro Gln Glu Gly Thr Thr Pro Leu Met Gly
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<210> 6003

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 6003

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<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

Met	Val	Thr	Thr	Pro	Ser	Trp	Trp	Ala	Val	Trp	Pro	Trp	Val	Ser	Gly
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			20					25					30		
Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
		35					40					45			
Gly	Gly	Thr	Glu	Thr	Thr	Ser	Met	Leu	Xaa	Val	Pro	Gly	Val	Thr	Gln
		50				55				60					
Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
65					70				75					80	
Ala	Leu	Pro	Xaa	Arg	Gly	Ser	Pro	Arg	Gly	Pro	Gly	Pro	Arg	Ala	Pro
			85					90					95		
Gly	Arg	Gly	Arg	Asp	Cys	Gly	Gly	Asn	Gly	Pro	Ala	Glu	Ala	Pro	Ala

	100		105		110									
Pro	Leu	Ser	Ala	Phe	Gln	Pro	Pro	Ala	Leu	Gly	Pro	Ala	Pro	Lys
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Glu	Gly	Gly	Pro	Ser	Ser	Leu	Asn	Lys	Arg	Cys	Thr			
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<210> 6005

<211> 1735

<212> DNA

<213> Homo sapiens

<400> 6005

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<210> 6006
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 6006
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 Gly Glu Ala Gly Glu Met Gly Leu Ser Gly Leu Pro Gly Ala Asp Gly
 35 40 45
 Leu Lys Gly Glu Lys Gly Glu Ser Ala Ser Gln Pro Thr Gly Glu Pro
 50 55 60
 Gly Ser Ala His Ser Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro
 65 70 75 80
 Gly Pro Met Gly Leu Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly
 85 90 95
 Ala Lys Gly Glu Lys Gly Ala Ser Gly Glu Arg Gly Ser Ser Gly Leu
 100 105 110
 Pro Gly Pro Val Gly Pro Pro Gly Leu Ile Gly Leu Pro Gly Thr Lys
 115 120 125
 Gly Glu Lys Gly Arg Pro Gly Glu Pro Gly Leu Asp Gly Phe Pro Gly
 130 135 140
 Pro Arg Gly Glu Lys Gly Asp Arg Ser Glu Arg Gly Glu Lys Gly Glu
 145 150 155 160
 Arg Gly Val Pro Gly Arg Lys Gly Val Lys Gly Gln Lys Gly Glu Pro
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 Gly Pro Pro Gly Leu Asp Gln Pro Cys Pro Val Gly Pro Asp Gly Leu
 180 185 190
 Pro Val Pro Gly Cys Trp His Lys
 195 200

<210> 6007
 <211> 693
 <212> DNA
 <213> Homo sapiens

<400> 6007

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<210> 6008

<211> 214

<212> PRT

<213> Homo sapiens

<400> 6008

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			20					25					30		
Gly	Lys	Met	Val	Lys	Lys	Val	Cys	Pro	Cys	Asn	Gln	Leu	Cys	Arg	Thr
		35					40					45			
Ser	Ser	Thr	Asn	Thr	Val	Gly	Ala	Thr	Val	Asn	Ser	Gln	Ala	Ala	Gln
		50				55					60				
Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
65					70				75						80
Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
			85					90						95	
Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
			100				105						110		
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
		115				120					125				
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
		130				135					140				
Leu	Gly	His	Phe	Thr	Lys	Ser	Met	Cys	Pro	Pro	Gln	Gln	Tyr	Gly	Phe
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Pro	Ala	Thr	Pro	Phe	Gly	Ala	Gln	Trp	Ser	Gly	Thr	Gly	Gly	Pro	Ala

				165					170					175					
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			180					185					190						
Asn	Phe	Asn	Ile	Ser	Asn	Leu	Gln	Lys	Ser	Ile	Ser	Asn	Pro	Pro	Gly				
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<210> 6009

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 6009

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<210> 6010

<211> 468

<212> PRT

<213> Homo sapiens

<400> 6010

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			20					25					30		
Asp	Thr	Val	Tyr	Asp	Val	Val	Val	Ser	Gly	Gly	Gly	Leu	Val	Gly	Ala
		35					40					45			
Ala	Met	Ala	Cys	Ala	Leu	Gly	Tyr	Asp	Ile	His	Phe	His	Asp	Lys	Lys
	50					55					60				
Ile	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Lys	Val	Leu	Glu	Lys	Leu	Ser
65				70					75					80	
Glu	Thr	Tyr	Ser	Asn	Arg	Val	Ser	Ser	Ile	Ser	Pro	Gly	Ser	Ala	Thr
			85					90					95		
Leu	Leu	Ser	Ser	Phe	Gly	Ala	Trp	Asp	His	Ile	Cys	Asn	Met	Arg	Tyr
			100					105					110		
Arg	Ala	Phe	Arg	Arg	Met	Gln	Val	Trp	Asp	Ala	Cys	Ser	Glu	Ala	Leu
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Ile	Met	Phe	Asp	Lys	Asp	Asn	Leu	Asp	Asp	Met	Gly	Tyr	Ile	Val	Glu
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Asn	Asp	Val	Ile	Met	His	Ala	Leu	Thr	Lys	Gln	Leu	Glu	Ala	Val	Ser
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Asp	Arg	Val	Thr	Val	Leu	Tyr	Arg	Ser	Lys	Ala	Ile	Arg	Tyr	Thr	Trp
			165						170				175		
Pro	Cys	Pro	Phe	Pro	Met	Ala	Asp	Ser	Ser	Pro	Trp	Val	His	Ile	Thr
			180					185					190		
Leu	Gly	Asp	Gly	Ser	Thr	Phe	Gln	Thr	Lys	Leu	Leu	Ile	Gly	Ala	Asp
		195				200						205			
Gly	His	Asn	Ser	Gly	Val	Arg	Gln	Ala	Val	Gly	Ile	Gln	Asn	Val	Ser
	210					215					220				
Trp	Asn	Tyr	Asp	Gln	Ser	Ala	Val	Val	Ala	Thr	Leu	His	Leu	Ser	Glu
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 Phe Val Asp Ala Val Asn Ser Ala Phe Trp Ser Asp Ala Asp His Thr
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 325 330 335
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 385 390 395 400
 Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg
 405 410 415
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 420 425 430
 Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly
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<210> 6011

<211> 1331

<212> DNA

<213> Homo sapiens

<400> 6011

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<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

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Val	Phe	Ser	Lys	Gly	Val	Arg	Glu	Val	Glu	Arg	Val	Leu	Gln	Leu	Pro
			20					25					30		
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
		35				40					45				
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
	50				55					60					
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
65				70					75					80	
Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90					95		
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
		100						105					110		
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
		115				120					125				
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
	130				135						140				
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
145				150					155					160	
Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

				165					170					175					
Ala	Arg	Gly	Thr	Met	Gln	Pro	Phe	Asn	Tyr	Val	Thr	Leu	Gln	Cys	Leu				
			180					185					190						
Ala	Ala	Arg	Ala	Leu	Asp	Lys	Asn	Lys	Ile	Pro	Tyr	Lys	Gly	Phe	Ile				
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<210> 6013

<211> 2204

<212> DNA

<213> Homo sapiens

<400> 6013

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<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

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			20					25					30		
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
		35					40					45			
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
		50				55					60				
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
65					70					75				80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
			85				90						95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln


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<400> 6016
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      20             25             30
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      35             40             45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala
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Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala				
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<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

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<210> 6018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 6018

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			20					25					30		
Asn	Gly	Lys	Gly	Lys	Glu	Leu	Met	Trp	Asn	Phe	Arg	Glu	Leu	Ser	Glu
		35				40					45				
Asn	Ser	Gln	Gln	Ala	Ala	Asn	Val	Leu	Ser	Gly	Ala	Cys	Gly	Leu	Gln
	50				55					60					
Arg	Gly	Asp	Arg	Val	Ala	Val	Met	Leu	Pro	Arg	Val	Pro	Glu	Trp	Trp
65				70					75					80	
Leu	Val	Ile	Leu	Gly	Cys	Ile	Arg	Ala	Gly	Leu	Ile	Phe	Met	Pro	Gly
			85				90					95			
Thr	Ile	Gln	Met	Lys	Ser	Thr	Asp	Ile	Leu	Tyr	Arg	Leu	Gln	Met	Ser
		100					105					110			
Lys	Ala	Lys	Ala	Ile	Val	Ala	Gly	Asp	Glu	Val	Ile	Gln	Glu	Val	Asp
		115				120						125			
Thr	Val	Ala	Ser	Glu	Cys	Pro	Ser	Leu	Arg	Ile	Lys	Leu	Leu	Val	Ser

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Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser				160
		165		170
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu				175
		180		185
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp				190
		195		200
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly				205
		210		215
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly				220
225		230		235
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile				240
		245		250
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro				255
		260		265
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe				270
		275		280
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu				285
		290		295
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe				300
305		310		315
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met				320
		325		330
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val				335
		340		345
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly				350
		355		360
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser				365
		370		375
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp				380
385		390		395
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe				400
		405		410
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg				415
		420		425
Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val				430
		435		440
Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val				445
		450		455
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro				460
465		470		475
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala				480
		485		490
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys				495
		500		505
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<210> 6019

<211> 3002

<212> DNA

<213> Homo sapiens

<400> 6019

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<211> 387

<212> PRT

<213> Homo sapiens

<400> 6020

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<211> 3145

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<213> Homo sapiens

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<211> 708

<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 100

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<213> Homo sapiens

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<211> 496

<212> PRT

<213> Homo sapiens

<400> 6026

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Glu Asp Arg Arg Leu Gln Pro Ser Thr Pro Glu Lys Lys Gly Leu Phe			
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Val Ser Pro Tyr Ser Leu Ser Pro Val Ser Asn Lys Ser Gln Lys Leu			
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Leu Arg Ser Pro Arg Lys Pro Thr Arg Lys Ile Ser Lys Ile Pro Phe			
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Lys Val Leu Asp Ala Pro Glu Leu Gln Asp Asp Phe Tyr Leu Asn Leu			
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Val Asp Trp Ser Ser Leu Asn Val Leu Ser Val Gly Leu Gly Thr Cys			
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Val Tyr Leu Trp Ser Ala Cys Thr Ser Gln Val Thr Arg Leu Cys Asp			
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Leu Ser Val Glu Gly Asp Ser Val Thr Ser Val Gly Trp Ser Glu Arg			
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Arg Val Gly Ala Leu Ala Trp Asn Ala Glu Gln Leu Ser Ser Gly Ser			
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<212> DNA
<213> Homo sapiens

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3240
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3300
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 3480
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 3600
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 3660
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 3720
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 3900
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 3910

<210> 6038
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 6038
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 Ile Thr Ala Leu Cys Thr Ala Leu Ala Glu Pro Ala Trp Leu His Ile
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 His Gly Gly Thr Cys Ser Arg Gln Glu Leu Gly Val Ser Asp Val Leu
 35 40 45
 Gly Tyr Val His Pro Asp Leu Leu Lys Asp Phe Cys Met Asn Pro Gln
 50 55 60
 Thr Val Leu Leu Leu Arg Val Ile Ala Ala Phe Cys Phe Leu Gly Ile
 65 70 75 80
 Leu Cys Ser Leu Ser Ala Phe Leu Leu Asp Val Phe Gly Pro Lys His
 85 90 95
 Pro Ala Leu Lys Ile Thr Arg Arg Tyr Ala Phe Ala His Ile Leu Thr
 100 105 110
 Val Leu Gln Cys Ala Thr Val Ile Gly Phe Ser Tyr Trp Ala Ser Glu
 115 120 125
 Leu Ile Leu Ala Gln Gln Gln Gln His Lys Lys Tyr His Gly Ser Gln
 130 135 140
 Val Tyr Val Thr Phe Ala Val Ser Phe Tyr Leu Val Ala Gly Ala Gly
 145 150 155 160
 Gly Ala Ser Ile Leu Ala Thr Ala Ala Asn Leu Leu Arg His Tyr Pro
 165 170 175
 Thr Glu Glu Glu Glu Gln Ala Leu Glu Leu Leu Ser Glu Met Glu Glu
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 195 200 205
 Pro Pro Ala Tyr Thr Pro
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<210> 6039
<211> 1130
<212> DNA
<213> Homo sapiens

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240
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420
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480
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540
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600
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720
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840
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900
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1020
ccatatttgc ccctcccat cacagtcttg cccttcaccc tcaagcacgg tccataaactt
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1130

<210> 6040
<211> 312
<212> PRT
<213> Homo sapiens

<400> 6040
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Gly Leu Leu Ala Val Leu Arg Ala Gly Pro Gly Pro Glu Ala Leu Leu

20 25 30
 Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala
 35 40 45
 Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu
 50 55 60
 Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
 65 70 75 80
 Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
 85 90 95
 Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Leu Asp Ala Ala
 100 105 110
 Gly Gln Val Phe Ser Trp Gly Gly Gly Arg His Gly Gln Leu Gly His
 115 120 125
 Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
 130 135 140
 Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
 145 150 155 160
 Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
 165 170 175
 Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
 180 185 190
 Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
 195 200 205
 Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
 210 215 220
 Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
 225 230 235 240
 Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
 245 250 255
 Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
 260 265 270
 Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
 275 280 285
 Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val
 290 295 300
 Tyr Ala Val Glu Lys Gly Lys Ser
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<210> 6041

<211> 291

<212> DNA

<213> Homo sapiens

<400> 6041

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120

cggttgagc agcaaaagca gcagataatg gcagctttaa actcccagac tgccgtgcag
180

ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc
240

cgccagttgc aggagcaaca ctatcagcag tacatgcagc agttgtatca c
291

<210> 6042
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 6042
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 20 25 30
 Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln
 35 40 45
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
 50 55 60
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
 65 70 75 80
 Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
 85 90 95
 His

<210> 6043
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 6043
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 120
 ttcaaggtgt cttgtacaac ccactgggga aacaggatct gggaccggtg cgggcacatt
 180
 ctccctggccc agcacagggg cggtgccacc cacattcggc ccgggtcttg cctaatacat
 240
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 300
 ggaatccaca cccccgcccc acccctctcg ggacacggat tcaatgtccc tgggtgggtca
 360
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 420
 tgttctcccc cgtcgacgtt gctcagataa cagtcctgca attccatggg ggtggcggca
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<210> 6044
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 6044

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      20           25           30
Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
      35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
      50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
      85           90           95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
      100          105          110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
      115          120          125
Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
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Thr Leu Cys Leu Asp Ile Ser Tyr
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<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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180
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240
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300
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420
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480
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540
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660
gagatgcccg cagagggcaa ggcagagcgc aagccccatg actgtgagtc ctctactgtt
720
agtgaggaag actacttcag cagccacagg gacgagctcc agagcagaaa ggccattgac
780

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gctgccactc aaacagagcc aggagaggag atgccagggc tgagtgtgag tgagggtggga
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 960
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 1020
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 1740
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 1800
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 1860
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 1916

<210> 6046
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 6046
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 Pro Tyr Gly Cys Lys Asp Ala Leu Arg Gln Gln Leu Arg Ser Ala Arg
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 Glu Val Ile Ala Val Val Met Asp Val Phe Thr Asp Ile Asp Ile Phe
 35 40 45
 Arg Asp Leu Gln Glu Ile Cys Arg Lys Gln Gly Val Ala Val Tyr Ile
 50 55 60
 Leu Leu Asp Gln Ala Leu Leu Ser Gln Phe Leu Asp Met Cys Met Asp

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Leu	Lys	Val	His	Pro	Glu	Gln	Glu	Lys	Leu	Met	Thr	Val	Arg	Thr	Ile
				85					90					95	
Thr	Gly	Asn	Ile	Tyr	Tyr	Ala	Arg	Ser	Gly	Thr	Lys	Ile	Ile	Gly	Lys
			100					105					110		
Val	His	Glu	Lys	Phe	Thr	Leu	Ile	Asp	Gly	Ile	Arg	Val	Ala	Thr	Gly
		115					120					125			
Ser	Tyr	Ser	Phe	Thr	Trp	Thr	Asp	Gly	Lys	Leu	Asn	Ser	Ser	Asn	Leu
	130					135					140				
Val	Ile	Leu	Ser	Gly	Gln	Val	Val	Glu	His	Phe	Asp	Leu	Glu	Phe	Arg
145					150					155					160
Ile	Leu	Tyr	Ala	Gln	Ser	Lys	Pro	Ile	Ser	Pro	Lys	Leu	Leu	Ser	His
			165						170					175	
Phe	Gln	Ser	Ser	Asn	Lys	Phe	Asp	His	Leu	Thr	Asn	Arg	Lys	Pro	Gln
			180					185					190		
Ser	Lys	Glu	Leu	Thr	Leu	Gly	Asn	Leu	Leu	Arg	Met	Arg	Leu	Ala	Arg
	195					200						205			
Leu	Ser	Ser	Thr	Pro	Arg	Lys	Ala	Asp	Leu	Asp	Pro	Glu	Met	Pro	Ala
	210					215					220				
Glu	Gly	Lys	Ala	Glu	Arg	Lys	Pro	His	Asp	Cys	Glu	Ser	Ser	Thr	Val
225					230					235					240
Ser	Glu	Glu	Asp	Tyr	Phe	Ser	Ser	His	Arg	Asp	Glu	Leu	Gln	Ser	Arg
			245						250					255	
Lys	Ala	Ile	Asp	Ala	Ala	Thr	Gln	Thr	Glu	Pro	Gly	Glu	Glu	Met	Pro
			260					265					270		
Gly	Leu	Ser	Val	Ser	Glu	Val	Gly	Thr	Gln	Thr	Ser	Ile	Thr	Thr	Ala
	275						280					285			
Cys	Ala	Gly	Thr	Gln	Thr	Ala	Val	Ile	Thr	Arg	Ile	Ala	Ser	Ser	Gln
	290					295					300				
Thr	Thr	Ile	Trp	Ser	Arg	Ser	Thr	Thr	Thr	Gln	Thr	Asp	Met	Asp	Glu
305					310					315					320
Asn	Ile	Leu	Phe	Pro	Arg	Gly	Thr	Gln	Ser	Thr	Glu	Gly	Ser	Pro	Val
			325						330					335	
Ser	Lys	Met	Ser	Val	Ser	Arg	Ser	Ser	Ser	Leu	Lys	Ser	Ser	Ser	Ser
			340					345					350		
Val	Ser	Ser	Gln	Gly	Ser	Val	Ala	Ser	Ser	Thr	Gly	Ser	Pro	Ala	Ser
	355						360					365			
Ile	Arg	Thr	Thr	Asp	Phe	His	Asn	Pro	Gly	Tyr	Pro	Lys	Tyr	Leu	Gly
	370					375					380				
Thr	Pro	His	Leu	Glu	Leu	Tyr	Leu	Ser	Asp	Ser	Leu	Arg	Asn	Leu	Asn
385					390					395					400
Lys	Glu	Arg	Gln	Phe	His	Phe	Ala	Gly	Ile	Arg	Ser	Arg	Leu	Asn	His
			405						410					415	
Met	Leu	Ala	Met	Leu	Ser	Arg	Arg	Thr	Leu	Phe	Thr	Glu	Asn	His	Leu
			420					425				430			
Gly	Leu	His	Ser	Gly	Asn	Phe	Ser	Arg	Val	Asn	Leu	Leu	Ala	Val	Arg
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Asp	Val	Ala	Leu	Tyr	Pro	Ser	Tyr	Gln							
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<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

<400> 6047

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 360
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 480
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<210> 6048

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6048

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			20					25					30		
Gly	Thr	Thr	Leu	Glu	Lys	Ser	Cys	Leu	His	His	Cys	Ser	Gly	Gly	Gly
		35					40				45				
His	Leu	Pro	Ser	Ala	Cys	Leu	Gly	Ala	Arg	Arg	Ser	Ser	Ser	Leu	Leu
	50					55					60				
Gly	Tyr	Gly	Ser	Cys	Arg	Asp	Thr	Gln	Ser	Trp	Thr	Pro	Asp	Pro	Leu
65				70					75					80	
Pro	His	Pro	Pro	Ser	Leu	Ser	Pro	Gln	Ser	Leu	Leu	Tyr	Ser	Gln	Ala
			85					90					95		
Met	Arg	Ser	Pro	Ile	Ser	His	Gln	Glu	Leu	Thr	Arg	Pro	Leu	Gly	Lys
			100				105						110		
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<210> 6049
 <211> 479
 <212> DNA
 <213> Homo sapiens

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 240
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 gaagacaccc tggagtttgt agggtttgat gcgaagatgg ctgaggaatc ctctcctcc
 360
 tcctcctcat cttcaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
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<210> 6050
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 6050
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 Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Ser Asn Ser
 35 40 45
 Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Ser Thr
 50 55 60
 Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
 65 70 75 80
 Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
 85 90 95
 Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
 100 105 110
 Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
 115 120 125
 Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
 130 135 140
 Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
 145 150 155

<210> 6051
 <211> 2404
 <212> DNA
 <213> Homo sapiens

<400> 6051

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120
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180
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240
cgctaccagg aagtttgtag gcaacgtagc aagcgcacac agttagaaga gattcaacag
300
aaggtaatgc aggtggtgaa ctggctagaa gggcctggat cagaacaact aagagcccag
360
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420
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<210> 6052

<211> 518

<212> PRT

<213> Homo sapiens

<400> 6052

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Phe Arg Gln Asn Leu Leu Gln Ala Ala Leu Glu Phe His Gly Val Ala		190
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Gln Asp Leu Ser Gln Gln Leu Asp Gly Leu Leu Gly Met Leu Cys Val		205
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	245	250
Glu Lys Gly Gln Gly Leu Leu Asp Gln Ile Ser Asn Gln Ala Ser Xaa		255
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Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Glu Asn Val Asp		270
	275	280
His Ile Gln Gly Val Met Glu Asp Met Gln Leu Arg Lys Gln Arg Cys		285
	290	295
Glu Asp Met Val Asp Val Arg Arg Leu Lys Met Leu Gln Met Val Gln		300
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Leu Phe Lys Cys Glu Glu Asp Ala Ala Lys Ala Val Glu Trp Leu Ser		320
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Ala Glu Lys Ile Leu Gln Asp Cys Pro Glu Glu Pro Glu Ala Ile Asn		430
	435	440
Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu		445
	450	455
Asp Arg Leu Thr Val Pro Val Val Tyr Pro Asp Gly Thr Glu Gln Tyr		460
465	470	475
Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp		480
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<210> 6053

<211> 3257

<212> DNA

<213> Homo sapiens

<400> 6053

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<210> 6054

<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

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Glu	Lys	Leu	Pro	Gly	Arg	Asn	Thr	Phe	Cys	Cys	Asp	Gly	Arg	Val	Met
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Met	Ala	Arg	Gln	Lys	Gly	Ile	Phe	Tyr	Leu	Thr	Leu	Phe	Leu	Ile	Leu
	50					55					60				
Gly	Thr	Cys	Thr	Leu	Phe	Phe	Ala	Phe	Glu	Cys	Arg	Tyr	Leu	Ala	Val
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Gln	Leu	Ser	Pro	Ala	Ile	Pro	Val	Phe	Ala	Ala	Met	Leu	Phe	Leu	Phe
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Ser	Met	Ala	Thr	Leu	Leu	Arg	Thr	Ser	Phe	Ser	Asp	Pro	Gly	Val	Ile
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Pro	Arg	Ala	Leu	Pro	Asp	Glu	Ala	Ala	Phe	Ile	Glu	Met	Glu	Ile	Glu
		115					120					125			
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Lys	Asn	Phe	Gln	Ile	Asn	Asn	Gln	Ile	Val	Lys	Leu	Lys	Tyr	Cys	Tyr
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Thr	Cys	Lys	Ile	Phe	Arg	Pro	Pro	Arg	Ala	Ser	His	Cys	Ser	Ile	Cys
				165					170					175	
Asp	Asn	Cys	Val	Glu	Arg	Phe	Asp	His	His	Cys	Pro	Trp	Val	Gly	Asn
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Cys	Val	Gly	Lys	Arg	Asn	Tyr	Arg	Tyr	Phe	Tyr	Leu	Phe	Ile	Leu	Ser
		195					200					205			
Leu	Ser	Leu	Leu	Thr	Ile	Tyr	Val	Phe	Ala	Phe	Asn	Ile	Val	Tyr	Val
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Ala	Leu	Lys	Ser	Leu	Lys	Ile	Gly	Phe	Leu	Glu	Thr	Leu	Lys	Glu	Thr
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Pro	Gly	Thr	Val	Leu	Glu	Val	Leu	Ile	Cys	Phe	Phe	Thr	Leu	Trp	Ser
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Thr	Thr	Asn	Glu	Asp	Ile	Lys	Gly	Ser	Trp	Thr	Gly	Lys	Asn	Arg	Val
		275					280					285			
Gln	Asn	Pro	Tyr	Ser	His	Gly	Asn	Ile	Val	Lys	Asn	Cys	Cys	Glu	Val
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Leu	Cys	Gly	Pro	Leu	Pro	Pro	Ser	Val	Leu	Asp	Arg	Arg	Gly	Ile	Leu
305					310					315					320
Pro	Leu	Glu	Glu	Ser	Gly	Ser	Arg	Pro	Pro	Ser	Thr	Gln	Glu	Thr	Ser
				325					330					335	
Ser	Ser	Leu	Leu	Pro	Gln	Ser	Pro	Ala	Pro	Thr	Glu	His	Leu	Asn	Ser

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<210> 6055
 <211> 2089
 <212> DNA
 <213> Homo sapiens

<400> 6055
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<210> 6056

<211> 285

<212> PRT

<213> Homo sapiens

<400> 6056

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Leu	Ala	Val	Ser	Arg	Thr	Asp	Gly	Thr	Val	Glu	Ile	Tyr	Asn	Leu	Ser
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Ala	Asn	Tyr	Phe	Gln	Glu	Lys	Phe	Phe	Pro	Gly	His	Glu	Ser	Arg	Ala
Thr	Glu	Ala	Leu	Cys	Trp	Ala	Glu	Gly	Gln	Arg	Leu	Phe	Ser	Ala	Gly
Leu	Asn	Gly	Glu	Ile	Met	Glu	Tyr	Asp	Leu	Gln	Ala	Leu	Asn	Ile	Lys
Tyr	Ala	Met	Asp	Ala	Phe	Gly	Gly	Pro	Ile	Trp	Ser	Met	Ala	Ala	Ser
Pro	Ser	Gly	Ser	Gln	Leu	Leu	Val	Gly	Cys	Glu	Asp	Gly	Ser	Val	Lys
Leu	Phe	Gln	Ile	Thr	Pro	Asp	Lys	Ile	Gln	Phe	Glu	Arg	Asn	Phe	Asp

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His	Ile	Ala	Ala	Gly	Ser	Ile	Asp	Tyr	Ile	Ser	Val	Phe	Asp	Val	Lys
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<210> 6057

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 6057

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<212> PRT

<213> Homo sapiens

<400> 6058

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<212> DNA

<213> Homo sapiens

<400> 6061

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 1800
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 1860
 aaaaaagaaa cagtattaga ttttggctct cataatctat tttggtattg ttacgaacat
 1920
 ggatatgaca accaaactgg aaatcagaac actagggtaa agtggatatt gaaatgaagc
 1980
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 2286

<210> 6064
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 6064
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 Phe Leu His Pro Asp Leu Gly Val Gly Gly Ala Glu Arg Leu Val Leu
 35 40 45
 Asp Ala Ala Leu Ala Leu Gln Ala Arg Gly Cys Ser Val Lys Ile Trp
 50 55 60
 Thr Ala His Tyr Asp Pro Gly His Cys Phe Ala Glu Ser Arg Glu Leu
 65 70 75 80
 Pro Val Arg Cys Ala Gly Asp Trp Leu Pro Arg Gly Leu Gly Trp Gly
 85 90 95
 Gly Arg Gly Ala Ala Val Cys Ala Tyr Val Arg Met Val Phe Leu Ala
 100 105 110
 Leu Tyr Val Leu Phe Leu Ala Asp Glu Glu Phe Asp Val Val Val Cys
 115 120 125
 Asp Gln Val Ser Ala Cys Ile Pro Val Phe Arg Leu Ala Arg Arg Arg
 130 135 140
 Lys Lys Ile Leu Phe Tyr Cys His Phe Pro Asp Leu Leu Leu Thr Lys

145		150		155		160									
Arg	Asp	Ser	Phe	Leu	Lys	Arg	Leu	Tyr	Arg	Ala	Pro	Ile	Asp	Trp	Ile
				165				170					175		
Glu	Glu	Tyr	Thr	Thr	Gly	Met	Ala	Asp	Cys	Ile	Leu	Val	Asn	Ser	Gln
			180					185					190		
Phe	Thr	Ala	Ala	Val	Phe	Lys	Glu	Thr	Phe	Lys	Ser	Leu	Ser	His	Ile
		195					200					205			
Asp	Pro	Asp	Val	Leu	Tyr	Pro	Ser	Leu	Asn	Val	Thr	Ser	Phe	Asp	Ser
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<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

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 180
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 240
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 300
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 780
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 1080

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 1920
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 1980
 ttatagaaga tgatggtttg ttgtcgggtga gtgttggatg aaatacttcc ttgcaccatt
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 2084

<210> 6066

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6066

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Arg	Val	Leu	Arg	Gly	Val	Asp	Asp	Leu	Asp	Phe	Phe	Ile	Gly	Asp	Glu
		20						25					30		
Ala	Ile	Asp	Lys	Pro	Thr	Tyr	Ala	Thr	Lys	Trp	Pro	Ile	Arg	His	Gly
		35					40					45			
Ile	Ile	Glu	Asp	Trp	Asp	Leu	Met	Glu	Arg	Phe	Met	Glu	Gln	Val	Val
	50					55				60					
Phe	Lys	Tyr	Leu	Arg	Ala	Glu	Pro	Glu	Asp	His	Tyr	Phe	Leu	Met	Gly
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<210> 6067

<211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

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120
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180
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240
tcctagaact tacattccca gagagaaaga gactcctggg aattataaga gtggagaaag
300
gactataata atcgcaacag ctaacactct tccagctaac actgcatgct gggcactgtc
360
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406

<210> 6068

<211> 117

<212> PRT

<213> Homo sapiens

<400> 6068

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Ser	Cys	Cys	Asp	Tyr	Tyr	Ser	Pro	Phe	Ser	Thr	Leu	Ile	Ile	Pro	Arg
			20					25					30		
Ser	Leu	Phe	Leu	Ser	Gly	Asn	Val	Ser	Ser	Arg	Arg	Met	Arg	Thr	Ala
		35				40					45				
Ser	Arg	Ser	Ser	Glu	Pro	Pro	Ala	Cys	Pro	Arg	His	Trp	Pro	Cys	Pro
	50					55				60					
Pro	Gly	Leu	Pro	Phe	Gly	Gln	Gly	Ala	Val	Ala	Arg	Ala	Ala	Pro	Cys
65				70					75					80	
Pro	Ala	Tyr	Ser	His	Ser	Ala	Val	Gly	Arg	Pro	Pro	Leu	Pro	Arg	Lys
			85					90					95		
Arg	Gly	Ala	Val	Ser	Ser	Gly	Arg	Leu	His	Arg	Arg	Gly	Thr	Gly	Ala
			100					105					110		
Met	Trp	Trp	Glu	Gly											
			115												

<210> 6069

<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

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120
ctggagtact gtatcatggt cattgggggtc cccaacgtgg gcaagtcctc cctcatcaac
180

tccctccgga ggcagcacct caggaaaggg aaagccacca ggggtgggtgg cgagcctggg
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 atcaccagag ctgtgatgtc caaaattcag gtggagtcct caggggccag gcccagcact
 300
 ctgtcaagag ctctgcaggc gtctggcacc tgcgcacctc tgtgtggctt cgggctgctg
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 420
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 456

<210> 6070

<211> 148

<212> PRT

<213> Homo sapiens

<400> 6070

Xaa	Glu	Gly	Leu	Lys	Asn	Val	Ile	Phe	Thr	Asn	Cys	Val	Lys	Asp	Glu
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Asn	Val	Lys	Gln	Ile	Ile	Pro	Met	Val	Thr	Glu	Leu	Ile	Gly	Arg	Ser
			20					25					30		
His	Arg	Tyr	His	Arg	Lys	Glu	Asn	Leu	Glu	Tyr	Cys	Ile	Met	Val	Ile
		35					40					45			
Gly	Val	Pro	Asn	Val	Gly	Lys	Ser	Ser	Leu	Ile	Asn	Ser	Leu	Arg	Arg
	50					55					60				
Gln	His	Leu	Arg	Lys	Gly	Lys	Ala	Thr	Arg	Val	Gly	Gly	Glu	Pro	Gly
65					70					75				80	
Ile	Thr	Arg	Ala	Val	Met	Ser	Lys	Ile	Gln	Val	Glu	Ser	Ser	Gly	Ala
			85						90					95	
Arg	Pro	Ser	Thr	Leu	Ser	Arg	Ala	Leu	Gln	Ala	Ser	Gly	Thr	Cys	Arg
			100					105					110		
Pro	Leu	Cys	Gly	Phe	Arg	Leu	Leu	Thr	Thr	Leu	Pro	Ser	Pro	Pro	Leu
		115					120					125			
Ser	Val	Pro	Ala	Glu	His	Pro	Arg	Gly	Arg	His	Cys	Pro	Ala	Leu	Ile
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Pro	Gln	Ser	Ser												
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<210> 6071

<211> 2633

<212> DNA

<213> Homo sapiens

<400> 6071

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 180
 aagagtccta ccaaaatacc tgggatatag taatcactca atgaatataa actgcactta
 240
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 300

tcaaaagtgtg gatttttttt tctcagtgc ataagaaaga tgacttactt cacaagtgtg
360
atattggatt ccgactcgac tcattacata ccatcctgca acaggaagtc ctgttacaag
420
aggatgtgga gctgattgag ctacttgatc ccagtatcct gtctgcaggg caatctcaac
480
aacaggaaaa tggacacctt ccaacacttt gctccctggc aaccctaata atttgggagc
540
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600
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660
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720
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780
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 2633

<210> 6072

<211> 76

<212> PRT

<213> Homo sapiens

<400> 6072

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Ala	Glu	Ala	Gly	Gly	Ser	Phe	Glu	Val	Arg	Ser	Ser	Arg	Pro	Ala	Trp
		20						25					30		
Pro	Thr	Trp	Arg	Asn	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Asn	Lys
	35						40					45			
Ala	Trp	Trp	Arg	Val	Pro	Val	Val	Pro	Ala	Thr	Arg	Glu	Ala	Glu	Ala
	50					55					60				
Gly	Glu	Ser	Leu	Glu	Pro	Gly	Arg	Arg	Arg	Phe	Gln				
65					70					75					

<210> 6073

<211> 387

<212> DNA

<213> Homo sapiens

<400> 6073

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 120
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 180

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 387

<210> 6074

<211> 69

<212> PRT

<213> Homo sapiens

<400> 6074

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Arg	Gly	Leu	Cys	Thr	Ala	Ser	Phe	Pro	Pro	His	Leu	Ser	Pro	Ala	Arg
			20					25					30		
Ala	Pro	Thr	Gly	Pro	Phe	Ser	Pro	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val
		35					40					45			
Asn	Asp	Met	Ala	Leu	Asp	Ala	Phe	Asp	Leu	Asp	Arg	Met	Lys	Gln	Glu
	50					55					60				
Ile	Leu	Glu	Glu	Val											
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<210> 6075

<211> 4668

<212> DNA

<213> Homo sapiens

<400> 6075

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 120
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 240
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 360
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 660

gaaagctctg cccttctcat gatatcccat agctaacata agggcttttc tttctgatgg
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1860
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1980
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2160
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2280

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2460
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<211> 601

<212> PRT

<213> Homo sapiens

<400> 6076

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<210> 6077

<211> 2093

<212> DNA

<213> Homo sapiens

<400> 6077

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5260

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<210> 6078
 <211> 213
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Val Arg Glu Ala Glu Asp Arg Glu Leu Val Thr Met Ala Gly Pro Gln
 50 55 60
 Pro Leu Ala Leu Gln Leu Glu Gln Leu Leu Asn Pro Arg Pro Ser Glu
 65 70 75 80
 Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala Arg Val Ile
 85 90 95
 Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe Leu Val Val
 100 105 110
 Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp Thr Asp Lys
 115 120 125
 Arg Tyr Cys Gly Lys Thr Thr Ser Arg Lys Ala Trp Asn Glu Asp His
 130 135 140
 Trp Glu Gln Thr Leu Pro Gly Ser Ser Asp Glu Glu Ile Ser Asp Glu
 145 150 155 160
 Glu Gly Ser Gly Asp Glu Asp Ser Glu Gly Leu Gly Leu Glu Glu Tyr
 165 170 175
 Asp Glu Asp Asp Leu Gly Ala Ala Glu Glu Gln Glu Cys Gly Asp Gln

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Cys	Pro	Glu	Tyr	Gln									Gln
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<210> 6079

<211> 651

<212> DNA

<213> Homo sapiens

<400> 6079

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<212> PRT

<213> Homo sapiens

<400> 6080

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			20					25					30		
Gln	Leu	Gln	Gly	Gly	Arg	Phe	Leu	Met	Gly	Thr	Asn	Ser	Pro	Asp	Ser
		35					40					45			
Arg	Asp	Gly	Glu	Gly	Pro	Val	Arg	Glu	Ala	Thr	Val	Lys	Pro	Phe	Ala
	50					55					60				
Ile	Asp	Ile	Phe	Pro	Val	Thr	Asn	Lys	Asp	Phe	Arg	Asp	Phe	Val	Arg
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Glu	Lys	Lys	Tyr	Arg	Thr	Glu	Ala	Glu	Met	Phe	Gly	Trp	Ser	Phe	Val
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Phe	Glu	Asp	Phe	Val	Ser	Asp	Glu	Leu	Arg	Asn	Lys	Ala	Thr	Gln	Pro

			100					105					110				
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		115					120					125					
Gln	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Ile	Arg	Glu	Arg	Leu	Glu	His	Pro		
	130					135					140						
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<210> 6081
 <211> 655
 <212> DNA
 <213> Homo sapiens

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 <211> 218
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		20					25					30					
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	35					40					45						
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Lys	Leu	Ala	Gly	Pro	Ala	Ser	Ile	Gly	Leu	Leu	Ser	Pro	Gly	Ile	Leu
			100					105					110		
Glu	Tyr	Leu	Leu	Gln	Cys	Leu	Lys	Leu	Gln	Ser	His	Pro	Thr	Val	Met
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	130					135					140				
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Cys	Ala	Gln	Trp	Ser	Leu	Asp	Asn	Leu	Phe	Leu	Lys	Glu	Gly	Arg	Gln
		180					185					190			
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<210> 6083

<211> 358

<212> DNA

<213> Homo sapiens

<400> 6083

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<212> PRT

<213> Homo sapiens

<400> 6084

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			20					25					30		
Leu	Ile	Val	Glu	Gly	His	Leu	Thr	Lys	Ala	Val	Glu	Glu	Thr	Lys	Leu
	35						40					45			
Ser	Lys	Glu	Asn	Gln	Thr	Arg	Ala	Lys	Glu	Ser	Asp	Phe	Ser	Asp	Thr
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Leu	Ser	Pro	Ser	Lys	Glu	Lys	Ser	Ser	Asp	Asp	Thr	Thr	Asp	Ala	Gln

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<211> 84

<212> PRT

<213> Homo sapiens

<400> 6086

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Arg	Gly	Ala	Ser	Leu	Cys	Val	Phe	Val	Cys	Val	Cys	Leu	Cys	Val	Arg
			20					25					30		
Ile	Thr	Leu	Gly	Val	Gln	Ala	Ser	Gly	Cys	Val	Cys	Val	Cys	Ala	Cys
		35					40					45			
Val	Cys	Val	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Val	His	Thr	Gly
	50					55					60				
Gln	Pro	Pro	Tyr	Leu	Pro	Arg	Phe	Ser	Thr	Ala	Tyr	Leu	Phe	Gln	Trp
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<210> 6087

<211> 1506

<212> DNA

<213> Homo sapiens

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<400> 6088
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<211> 4211

<212> DNA

<213> Homo sapiens

<400> 6089

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<211> 839

<212> PRT

<213> Homo sapiens

<400> 6090

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5272

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<211> 1336

<212> DNA

<213> Homo sapiens

<400> 6091

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<211> 118

<212> PRT

<213> Homo sapiens

<400> 6092

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 <211> 136
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<211> 441

<212> DNA

<213> Homo sapiens

<400> 6095

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<210> 6096

<211> 97

<212> PRT

<213> Homo sapiens

<400> 6096

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Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Val	Val	Trp	Gly	Glu	Cys				
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Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn				
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<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

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<211> 631

<212> PRT

<213> Homo sapiens

<400> 6098

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<211> 3957

<212> DNA

<213> Homo sapiens

<400> 6099

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<212> PRT

<213> Homo sapiens

<400> 6100

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5284

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<211> 1447

<212> DNA

<213> Homo sapiens

<400> 6101

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<210> 6102

<211> 123

<212> PRT

<213> Homo sapiens

<400> 6102

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			20					25					30		
Leu	Ala	Met	Val	Ser	Gly	Asp	Gly	Phe	Leu	Val	Ser	Arg	Pro	Glu	Ala
		35					40					45			
Ile	His	Leu	Gly	Pro	Arg	Gln	Ala	Val	Arg	Pro	Ser	Val	Arg	Ala	Glu
	50					55					60				
Ser	Arg	Arg	Val	Asp	Gly	Gly	Gly	Arg	Ser	Pro	Arg	Glu	Pro	Asp	Gly
65				70						75				80	
Arg	Gly	Arg	Ser	Arg	Gln	Ala	Arg	Phe	Ser	Pro	Tyr	Pro	Ile	Pro	Ala
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<210> 6103

<211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

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<210> 6104

<211> 71

<212> PRT

<213> Homo sapiens

<400> 6104

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			20					25					30		
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
		35					40					45			
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
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<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

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1846

<210> 6106

<211> 405

<212> PRT

<213> Homo sapiens

<400> 6106

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          35           40           45
His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
          50           55           60
Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Arg His Arg Lys
65           70           75           80
Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
          85           90           95
Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
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His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
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Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
          130          135          140
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145          150          155          160
Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
          165          170          175
Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
          180          185          190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
          195          200          205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
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Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
225          230          235          240
Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
          245          250          255
Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
          260          265          270
Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
          275          280          285
Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
          290          295          300
Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
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Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
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Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
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Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
          355          360          365
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 <211> 896
 <212> DNA
 <213> Homo sapiens

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<210> 6108
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 6108
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 20 25 30
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 35 40 45
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
 50 55 60
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
 65 70 75 80
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

	85		90		95
Ser Thr Cys	Pro Arg Trp Arg Thr Asp Val Ser Pro Ala Asp Thr Ile				
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Ala Pro Arg Ser Trp Leu Leu Pro Leu Ser Ala Thr					
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<210> 6109

<211> 2087

<212> DNA

<213> Homo sapiens

<400> 6109

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<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

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			20					25					30		
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			35					40				45			
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Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
			100					105					110		
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Glu	Gly	Leu	Ala	Val	Gly	Leu	Gln	Arg	Asp	Arg	Ala	Arg	Ala	Met	Glu
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Cys	Gly	Ile	Leu	Phe	Ser	Cys	Met	Thr	Pro	Leu	Gly	Ile	Gly	Leu	Gly
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Ala	Ala	Leu	Ala	Glu	Ser	Ala	Gly	Pro	Leu	His	Gln	Leu	Ala	Gln	Ser
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		290				295									
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<210> 6111

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 6111

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<211> 110

<212> PRT

<213> Homo sapiens

<400> 6112

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		20						25					30		
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100

105

110

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<211> 1095
<212> DNA
<213> Homo sapiens

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agccaccacg acgtctttct acggtacgg ctttgtctct gctgggtatgg ggggtgggagc
300
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420
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480
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540
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600
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660
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720
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780
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840
ttctttgtag agttaagaa agcaagtaaa cgcattgacct gccataagcg gtataaaatc
900
caaaaaaagg ttcgagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcgggggtcac
960
aagaagccta ggaaagaccc aggagtcca aacagtgtc cctttaagga ggctcttctt
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1080
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1095

<210> 6114
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6114
Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

1	5	10	15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys			
	20	25	30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp			
	35	40	45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu			
	50	55	60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys			
65	70	75	80
Leu Asp Arg Gln Lys Glu Leu			
	85		

<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

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120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gtaaateccg
180
tggaggacac tgaccctgta cccaccctc gaggccagaa gtcggttctt ttgggggaac
240
tgaggggcga gagcactcgc ccccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctgcg catggcgtgt ctccaggctg ctgatgggca agacagatgt gccaggtcca
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411

<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val			
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Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly			
	20	25	30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala			
	35	40	45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr			
	50	55	60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu			
65	70	75	80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe			
	85	90	95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala			
	100	105	110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg			

115 120 125

Arg

<210> 6117
<211> 962
<212> DNA
<213> Homo sapiens

<400> 6117
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120
tcgggaggcg acaagatgtt ctccctcaag aagtggaaac cggtggccat gtggagctgg
180
gacgtggagt gcgatacgtg cgccatctgc agggctccagg tgatggatgc ctgtcttaga
240
tgtcaagctg aaaacaaaca agaggactgt gttgtggtct ggggagaatg taatcattcc
300
ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag
360
caggactggg tgggtccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag
420
ttgttcagag ccctgggtgga tcttgtaatc cagtgccta caaaggctag aacactacag
480
gggatgaatt cttcaaatag gagccgatgg atctgtggtc ctttgggact catcaaagcc
540
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660
taaaaaagga aagagctcca aattgaatca cttttataat ttacccattt ctatacaaca
720
ggcagtggaa gcagtttcag agaacttttt gcattgcttat gggtgatcag ttaaaaaaga
780
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840
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900
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960
aa
962

<210> 6118
<211> 113
<212> PRT
<213> Homo sapiens

<400> 6118
Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
1 5 10 15
Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

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          20          25          30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
          35          40          45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys
          50          55          60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys
65          70          75          80
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
          85          90          95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
          100          105          110
Lys

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<210> 6119
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 6119
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 120
 tggccccaca gaactcatgc ctgcttgctt taaaccacc aatgaaaact ccccatggga
 180
 aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtcctctgtc
 240
 tetgctctc tcttgcccct acccactggt tgagcatgtg tgtcccaaac ggccctgcaa
 300
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 360
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 375

<210> 6120
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 6120
 Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
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 Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
 20 25 30
 Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
 35 40 45
 Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
 50 55 60
 Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
 65 70 75 80
 Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
 85 90 95
 Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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120
aagaaacact ctccttctgc cacatttgtt ttgagctaaa tattgagggg gtaccaaagt
180
ctgatctctt gcacaccaaa tcattaaggg gccataaaga ctgctttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agctttcaaa aagtacttat gaagaagtta
300
aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataagc
420
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga
480
tagatggaag tgcagggtggc atctctaact gtacacaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcagggtgc cactttatgt cgtaacagtg
600
tattgtggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag
660
aggctaattg ccagacccag catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactcacca agtgcaagaa aaagattctt tggcctcaca gctccatgtc cgccacgttg
780
ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag
840
gaatgaagtc gcacctacc ataaacaact gacctaaaca gacttacttc gtatgccctg
900
ccctttattg gtctcccaga catgcaaact ttgaagaagt ttgaagaaag ttgtgggtccg
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1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

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      1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20           25           30
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35           40           45
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
      65           70           75           80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195          200          205
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210          215          220

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<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

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120
gcgaaacaac aagagaaaaa aaaggaagct gccctctgcc caaaacccac gtcgaggtcc
180
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300
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360
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420
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480
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540
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600

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ccgcaccgcc ttctgtctgt cttctcttct tcccagaatg aagacatcac cgagccgcag
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 720
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 780
 agatacggag cctttgggct gcccatcacc gtggcccatg tggatggcca aaccacatg
 840
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<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa	His	Ala	Cys	Ile	Pro	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn
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Arg	Leu	Asn	Pro	Gly	Gly	Gly	Gly	Cys	Gly	Glu	Leu	Arg	Ser	His	His
		20						25					30		
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	Lys
		35					40					45			
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
	50					55					60				
Pro	Leu	Gly	Leu	Phe	Ser	Leu	Ser	Val	Pro	Asn	Leu	Leu	Leu	Ala	Gly
65				70					75					80	
Asn	Lys	Pro	Pro	Gly	Leu	Leu	Pro	Arg	Lys	Gly	Leu	Tyr	Met	Ala	Asn
			85					90					95		
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
		100						105					110		
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
	115					120					125				
Arg	Phe	Leu	Thr	Ala	Val	Asn	Leu	Glu	His	Pro	Glu	Met	Leu	Glu	Lys
	130					135					140				
Ala	Ser	Arg	Glu	Leu	Trp	Met	Arg	Val	Trp	Ser	Arg	Val	Ser	Val	Gly
145					150				155						160
Leu	Trp	Glu	Ser	Ser	Gly	Arg	Thr	Leu	Asp	Asp	Phe	Leu	Thr	Phe	Pro
			165					170					175		
Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Pro	Gly	Gly	Ser	Thr
		180						185					190		
Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
	195					200					205				
Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
	210					215					220				
Ala	Ala	Glu	Lys	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu
225					230				235					240	
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
			245					250					255		
Glu	Ala	Ala	Cys	Arg	Tyr	Gly	Ala	Phe	Gly	Leu	Pro	Ile	Thr	Val	Ala
		260						265					270		
His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
	275					280						285			
Leu	Leu	Ala	His	Leu	Leu	Gly	Glu	Lys	Trp	Met	Gly				

290

295

300

<210> 6125

<211> 468

<212> DNA

<213> Homo sapiens

<400> 6125

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120
ggagaattga aggggctgca ggagcaaata gcagaaacca aagcccggct tatcacgcag
180
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240
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300
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360
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468

<210> 6126

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6126

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Asp	Lys	Lys	Lys	Met	Lys	Gln	Asp	Leu	Glu	Asp	Ala	Ser	Asn	Lys	Ala	20	25	30	
Glu	Glu	Glu	Arg	Ala	Arg	Leu	Glu	Gly	Glu	Leu	Lys	Gly	Leu	Gln	Glu	35	40	45	
Gln	Ile	Ala	Glu	Thr	Lys	Ala	Arg	Leu	Ile	Thr	Gln	Gln	His	Asp	Arg	50	55	60	
Ala	Gln	Glu	Gln	Ser	Asp	His	Ala	Leu	Met	Leu	Arg	Glu	Leu	Gln	Lys	65	70	75	80
Leu	Leu	Gln	Glu	Glu	Arg	Thr	Gln	Arg	Gln	Asp	Leu	Glu	Leu	Arg	Leu	85	90	95	
Glu	Glu	Thr	Arg	Glu	Ala	Leu	Ala	Gly	Arg	Ala	Tyr	Ala	Ala	Glu	Gln	100	105	110	
Met	Glu	Gly	Phe	Glu	Leu	Gln	Thr	Lys	Gln	Leu	Thr	Arg	Glu	Val	Glu	115	120	125	
Glu	Leu	Lys	Ser	Glu	Leu	Gln	Ala	Ile	Arg	Asp	Glu	Lys	Asn	Gln	Pro	130	135	140	
Asp	Pro	Arg	Leu	Gln	Glu	Leu	Gln	Glu	Glu	Ala	Ala					145	150	155	

<210> 6127

<211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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720
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<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

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Thr	Ile	Leu	Val	Glu	Cys	Trp	Asp	Gly	His	Leu	Thr	Pro	Pro	Glu	Val
		20						25					30		
Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
		35					40					45			
Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
	50					55				60					
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65				70					75					80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
			85					90					95		
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
			100					105					110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
		115				120						125			
Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
	130					135					140				
Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
145				150					155					160	
Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
			165					170					175		
Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
			180					185					190		
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Pro	Cys	Ser	Pro	Gln	Tyr	Leu	Thr	His	Pro	Ala	His	Pro	Ala	His	Pro
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Met	Pro	His	Met	Pro	Arg	Pro	Ala	Val	Phe	Pro	Val	Pro	Ser	Ser	Ala
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Tyr	Pro	Gln	Gly	Val	His	Pro	Ala	Phe	Leu	Gly	Ala	Gln	Tyr	Pro	Tyr
			245					250					255		
Ser	Val	Thr	Pro	Pro	Ser	Leu	Ala	Ala	Thr	Ala	Val	Ser	Phe	Pro	Val

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 Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly
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 Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala
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 Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly
 325 330 335
 Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His
 340 345 350
 Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu
 355 360 365
 Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser
 370 375 380
 Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala
 385 390 395 400
 Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala
 405 410 415
 Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr
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 Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro
 435 440 445
 Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr
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 Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe
 465 470 475 480
 Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met
 485 490 495
 Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys
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 Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe
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 <212> DNA
 <213> Homo sapiens

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1980

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2012

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<211> 364
<212> PRT
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Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val
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Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
65 70 75 80
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
85 90 95
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
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Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu
115 120 125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
130 135 140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
145 150 155 160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp
165 170 175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
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Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
195 200 205
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210 215 220
Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg
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Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr
245 250 255
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260 265 270
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
275 280 285
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys
290 295 300
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr
305 310 315 320
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val
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<211> 3526
<212> DNA
<213> Homo sapiens

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5309

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 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 6132
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 35 40 45
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 50 55 60
 Gln Ile Arg Ile Leu Lys Arg Pro Thr Ser Asn Gly Val Val Ser Ser
 65 70 75 80
 Pro Asn Ser Thr Ser Arg Pro Thr Leu Pro Val Lys Ser Leu Ala Gln
 85 90 95
 Arg Glu Ala Glu Tyr Ala Glu Ala Arg Lys Arg Ile Leu Gly Ser Ala
 100 105 110
 Ser Pro Glu Glu Glu Gln Glu Lys Pro Ile Leu Asp Arg Ser Ser Ser
 115 120 125
 Asp Leu Leu Pro Phe Arg Pro Thr Arg Ile Ser Gln Pro Glu Asp Ser
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 <212> DNA
 <213> Homo sapiens

<400> 6133

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 Lys Asp Gln Phe Ser Cys Gly Asn Ser Val Ala Asp Gln Ala Phe Leu
 65 70 75 80
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 Asn Asn His Gln Val Gly Ser Gly Asn Asp Pro Trp Ser Ala Trp Ser
 100 105 110
 Ala Ser Lys Ser Gly Asn Trp Glu Ser Ser Glu Gly Trp Gly Ala Gln

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Pro Glu Gly Ala Gly Ala Gln Arg Asn Thr Asn Thr Pro Asn Asn Trp		
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Asp Thr Ala Phe Gly His Pro Gln Ala Tyr Gln Gly Pro Ala Thr Gly		
145	150	155
Asp Asp Asp Asp Trp Asp Glu Asp Trp Asp Gly Pro Lys Ser Ser Ser		
165	170	175
Tyr Phe Lys Asp Ser Glu Ser Ala Asp Ala Gly Gly Ala Gln Arg Gly		
180	185	190
Asn Ser Arg Ala Ser Ser Ser Ser Met Lys Ile Pro Leu Asn Lys Phe		
195	200	205
Pro Gly Phe Ala Lys Pro Gly Thr Glu Gln Tyr Leu Leu Ala Lys Gln		
210	215	220
Leu Ala Lys Pro Lys Glu Lys Ile Pro Ile Ile Val Gly Asp Tyr Gly		
225	230	235
Pro Met Trp Val Tyr Pro Thr Ser Thr Phe Asp Cys Val Val Ala Asp		
245	250	255
Pro Arg Lys Gly Ser Lys Met Tyr Gly Leu Lys Ser Tyr Ile Glu Tyr		
260	265	270
Gln Leu Thr Pro Thr Asn Thr Asn Arg Ser Val Asn His Arg Tyr Lys		
275	280	285
His Phe Asp Trp Leu Tyr Glu Arg Leu Leu Val Lys Phe Gly Ser Ala		
290	295	300
Ile Pro Ile Pro Ser Leu Pro Asp Lys Gln Val Thr Gly Arg Phe Glu		
305	310	315
Glu Glu Phe Ile Lys Met Arg Met Glu Arg Leu Gln Ala Trp Met Thr		
325	330	335
Arg Met Cys Arg His Pro Val Ile Ser Glu Ser Glu Val Phe Gln Gln		
340	345	350
Phe Leu Asn Phe Arg Asp Glu Lys Glu Trp Lys Thr Gly Lys Arg Lys		
355	360	365
Ala Glu Arg Asp Glu Leu Ala Gly Val Met Ile Phe Ser Thr Met Glu		
370	375	380
Pro Glu Ala Pro Asp Leu Asp Leu Val Glu Ile Glu Gln Lys Cys Glu		
385	390	395
Ala Val Gly Lys Phe Thr Lys Ala Met Asp Asp Gly Val Lys Glu Leu		
405	410	415
Leu Thr Val Gly Gln Glu His Trp Lys Arg Cys Thr Gly Pro Leu Pro		
420	425	430
Lys Glu Tyr Gln Lys Ile Gly Lys Ala Leu Gln Ser Leu Ala Thr Val		
435	440	445
Phe Ser Ser Ser Gly Tyr Gln Gly Glu Thr Asp Leu Asn Asp Ala Ile		
450	455	460
Thr Glu Ala Gly Lys Thr Tyr Glu Glu Ile Ala Ser Leu Val Ala Glu		
465	470	475
Gln Pro Lys Lys Asp Leu His Phe Leu Met Glu Cys Asn His Glu Tyr		
485	490	495
Lys Gly Phe Leu Gly Cys Phe Pro Asp Ile Ile Gly Thr His Lys Gly		
500	505	510
Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr Ser Lys		
515	520	525
Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser Ile Met		
530	535	540
Ser Tyr Ala Leu Gln Ala Glu Met Asn His Phe His Ser Asn Arg Ile		

545		550		555		560									
Tyr	Asp	Tyr	Asn	Ser	Val	Ile	Arg	Leu	Tyr	Leu	Glu	Gln	Gln	Val	Gln
			565						570					575	
Phe	Tyr	Glu	Thr	Ile	Ala	Glu	Lys	Leu	Arg	Gln	Ala	Leu	Ser	Arg	Phe
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Pro	Val	Met													
		595													

<210> 6135
 <211> 526
 <212> DNA
 <213> Homo sapiens

<400> 6135
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 180
 gtccccaag tgcgtcttcc agtagtgaca tgtctctctc agaacctcca cagcctcttg
 240
 caagaaaaga cttgatggaa tctacatgga tgcagcctga aagattgagc ccacaagttc
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 accattctca accacagcct tttgctggaa cagctggaag tttactctcc catctcttga
 360
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 420
 atcataatat ggcttcaagg ccattaactt ttacacctca accatatgtg acctcaccag
 480
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 526

<210> 6136
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 6136
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 20 25 30
 Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His
 35 40 45
 Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser
 50 55 60
 Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr
 65 70 75 80
 Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala
 85 90 95
 Leu Val Lys Pro Ser Ala Ser Gln Tyr
 100 105

<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

<400> 6137

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180
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240
aaaaagggtc gagaacatca tcgaaaatta agaaaggagg ctaaaaagca gggtcacaag
300
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360
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420
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480
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540
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600
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660
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1440

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 1740
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 1800
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 1860
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 1920
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 2040
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<210> 6138

<211> 550

<212> PRT

<213> Homo sapiens

<400> 6138

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			20					25					30		
Arg	Lys	Glu	Ala	Lys	Lys	Gln	Gly	His	Lys	Lys	Pro	Arg	Lys	Asp	Pro
		35					40					45			
Gly	Val	Pro	Asn	Ser	Ala	Pro	Phe	Lys	Glu	Ala	Leu	Leu	Arg	Glu	Ala
	50					55					60				
Glu	Leu	Arg	Lys	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Gln	Gln	Gln	Lys	Leu
65				70					75					80	
Asp	Arg	Gln	Lys	Glu	Leu	Glu	Lys	Lys	Arg	Lys	Leu	Glu	Thr	Asn	Pro
			85						90					95	
Asp	Ile	Lys	Xaa	Ile	Lys	Cys	Gly	Thr	Xaa	Met	Glu	Lys	Glu	Phe	Gly
			100					105					110		
Leu	Cys	Lys	Thr	Glu	Asn	Lys	Ala	Lys	Ser	Gly	Lys	Gln	Asn	Ser	Lys
		115					120					125			
Lys	Leu	Tyr	Cys	Gln	Glu	Leu	Lys	Lys	Val	Ile	Glu	Ala	Ser	Asp	Val
	130					135					140				
Val	Leu	Glu	Val	Leu	Asp	Ala	Arg	Asp	Pro	Leu	Gly	Cys	Arg	Cys	Pro
145				150						155				160	
Gln	Val	Glu	Glu	Ala	Ile	Val	Gln	Ser	Gly	Gln	Lys	Lys	Leu	Val	Leu
			165						170				175		
Ile	Leu	Asn	Lys	Ser	Asp	Leu	Val	Pro	Lys	Glu	Asn	Leu	Glu	Ser	Trp
		180						185				190			
Leu	Asn	Tyr	Leu	Lys	Lys	Glu	Leu	Pro	Thr	Val	Val	Phe	Arg	Ala	Ser

195	200	205
Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys		
210	215	220
Lys Asn Ala Ala Pro Phe Arg Ser Glu Val Cys Phe Gly Lys Glu Gly		
225	230	235
Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile		
245	250	255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ser Ile Ile		
260	265	270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly		
275	280	285
Leu Thr Arg Ser Met Gln Val Val Pro Leu Asp Lys Gln Ile Thr Ile		
290	295	300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala		
305	310	315
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu		
325	330	335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu		
340	345	350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val		
355	360	365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val		
370	375	380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu		
385	390	395
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe		
405	410	415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu		
420	425	430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His		
435	440	445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile		
450	455	460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg		
465	470	475
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val		
485	490	495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu		
500	505	510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr		
515	520	525
Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp		
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Phe Ser Thr Asp Tyr Val		
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<210> 6139

<211> 2249

<212> DNA

<213> Homo sapiens

<400> 6139

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120
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180
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240
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300
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 2249

<210> 6140
 <211> 381
 <212> PRT
 <213> Homo sapiens

<400> 6140
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 Leu Leu Leu Gly Val Leu His Pro Asn Thr Lys Leu Arg Gln Ala Glu
 35 40 45
 Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu Ser Ile Ala His Ile
 50 55 60
 Gly Asp Val Met Phe Thr Gly Thr Ala Asp Gly Arg Val Val Lys Leu
 65 70 75 80
 Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe Xaa Phe Gly Pro Xaa
 85 90 95
 Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg Pro Leu Gly Ile
 100 105 110
 Arg Ala Gly Pro Asn Gly Thr Leu Phe Val Ala Asp Ala Tyr Lys Gly
 115 120 125
 Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys Leu Leu Leu Ser
 130 135 140
 Ser Glu Thr Pro Ile Glu Gly Lys Asn Met Ser Phe Val Asn Asp Leu
 145 150 155 160
 Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr Asp Ser Ser Ser
 165 170 175
 Lys Trp Gln Arg Arg Asp Tyr Leu Leu Leu Val Met Glu Gly Thr Asp
 180 185 190
 Asp Gly Arg Leu Leu Glu Tyr Asp Thr Val Thr Arg Glu Val Lys Val
 195 200 205
 Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln Leu Ser Pro Ala

210	215	220
Glu Asp Phe Val Leu Val Ala Glu Thr Thr Met Ala Arg Ile Arg Arg		
225	230	235
Val Tyr Val Ser Gly Leu Met Lys Gly Gly Ala Asp Leu Phe Val Glu		240
	245	250
Asn Met Pro Gly Phe Pro Asp Asn Ile Arg Pro Ser Ser Ser Gly Gly		255
	260	265
Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro Gly Phe Ser Met		270
	275	280
Leu Asp Phe Leu Ser Glu Arg Pro Trp Ile Lys Arg Met Ile Phe Lys		285
	290	295
Gly Ser Cys Ala Gly Cys Asp Leu Leu Phe Ser Gln Glu Thr Val Met		300
305	310	315
Lys Phe Val Pro Arg Tyr Ser Leu Val Leu Glu Leu Ser Asp Ser Gly		320
	325	330
Ala Phe Arg Arg Ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr		335
	340	345
Ile Ser Glu Val His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe		350
	355	360
Arg Ser Pro Phe Leu Cys Arg Leu Ser Leu Gln Ala Val		365
370	375	380

<210> 6141

<211> 5651

<212> DNA

<213> Homo sapiens

<400> 6141

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2400

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2640
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2700
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Pro	Lys	Gly	Tyr	Ala	Ala	Asn
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<211> 1137

<212> DNA

<213> Homo sapiens

<400> 6143

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<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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		20						25					30		
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Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro	Gln
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<212> DNA

<213> Homo sapiens

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 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys
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 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr
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 <212> PRT
 <213> Homo sapiens

<400> 6148

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Ser	Leu	Val	Gln	Glu	Gly	Glu	Trp	Glu	Arg	Ala	Ala	Ala	Val	Ala	Leu
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Thr	Leu	Arg	Leu	Gln	Leu	Asn	Asn	Pro	Tyr	Leu	Cys	Val	Met	Phe	Ala
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<400> 6149

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<213> Homo sapiens

<400> 6150

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			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
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Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
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Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
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Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
			85					90						95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
			100					105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
		115					120					125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
	130					135					140				
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
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Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
			165					170					175		
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
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240
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<210> 6154
 <211> 388
 <212> PRT
 <213> Homo sapiens

<400> 6154

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			20					25					30		
Ser	Arg	Ala	Tyr	Arg	Phe	Thr	Gly	His	Lys	Asp	Ala	Val	Thr	Cys	Val
		35					40					45			
Asn	Phe	Ser	Pro	Ser	Gly	His	Leu	Leu	Ala	Ser	Gly	Ser	Arg	Asp	Lys
	50					55					60				
Thr	Val	Arg	Ile	Trp	Val	Pro	Asn	Val	Lys	Gly	Glu	Ser	Thr	Val	Phe
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Arg	Ala	His	Thr	Ala	Thr	Val	Arg	Ser	Val	His	Phe	Cys	Ser	Asp	Gly
			85						90					95	
Gln	Ser	Phe	Val	Thr	Ala	Ser	Asp	Asp	Lys	Thr	Val	Lys	Val	Trp	Ala
			100						105				110		
Thr	His	Arg	Gln	Lys	Phe	Leu	Phe	Ser	Leu	Ser	Gln	His	Ile	Asn	Trp
		115					120					125			
Val	Arg	Cys	Ala	Lys	Phe	Ser	Pro	Asp	Gly	Arg	Leu	Ile	Val	Ser	Ala
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Val	His	Ser	Tyr	Cys	Glu	His	Gly	Gly	Phe	Val	Thr	Tyr	Val	Asp	Phe
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His	Ser	Ala	Ala	Val	Asn	Gly	Leu	Ser	Phe	His	Pro	Ser	Gly	Asn	Tyr
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Leu	Ile	Thr	Ala	Ser	Ser	Asp	Ser	Thr	Leu	Lys	Ile	Leu	Asp	Leu	Met
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Thr	Val	Ala	Phe	Ser	Arg	Thr	Gly	Glu	Tyr	Phe	Ala	Ser	Gly	Gly	Ser
		260						265					270		
Asp	Glu	Gln	Val	Met	Val	Trp	Lys	Ser	Asn	Phe	Asp	Ile	Val	Asp	His
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Gly	Glu	Val	Thr	Lys	Val	Pro	Arg	Pro	Pro	Ala	Thr	Leu	Ala	Ser	Ser
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Met	Gly	Asn	Leu	Pro	Glu	Val	Asp	Phe	Pro	Val	Pro	Pro	Gly	Arg	Gly
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Trp	Ser	Val	Glu	Ser	Val	Gln	Ser	Gln	Pro	Gln	Glu	Pro	Val	Ser	Val
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Pro	Gln	Thr	Leu	Thr	Ser	Thr	Leu	Glu	His	Ile	Val	Gly	Gln	Leu	Asp
		340						345					350		
Val	Leu	Thr	Gln	Thr	Val	Ser	Ile	Leu	Glu	Gln	Arg	Leu	Thr	Leu	Thr
		355					360					365			
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Arg Ala Thr Pro
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375

380

<210> 6155
<211> 995
<212> DNA
<213> Homo sapiens

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180
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<210> 6156
<211> 164
<212> PRT
<213> Homo sapiens

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Val Ser Ala Gly Phe Asp Ala Leu Glu Gly His Thr Pro Pro Leu Gly


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<210> 6158

<211> 455

<212> PRT

<213> Homo sapiens

<400> 6158

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		35					40					45					
Ile	Ser	Tyr	Asp	Tyr	Leu	Thr	Ser	Leu	Lys	Ser	Val	Pro	Tyr	Gly	Ser		
	50					55					60						
Glu	Glu	Tyr	Leu	Gln	Leu	Arg	Ser	Lys	Ile	His	Asp	Leu	Phe	Gln	Ser		
65					70					75					80		
Phe	Asp	Asp	Thr	Pro	Leu	Gly	Thr	Ala	Ser	Leu	Ala	Gln	Val	His	Lys		
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Ala	Val	Leu	His	Asp	Gly	Arg	Thr	Val	Ala	Val	Lys	Val	Gln	His	Pro		
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Lys	Val	Arg	Ala	Gln	Ser	Ser	Lys	Asp	Ile	Leu	Leu	Met	Glu	Val	Leu		
	115						120					125					
Val	Leu	Ala	Val	Lys	Gln	Leu	Phe	Pro	Glu	Phe	Glu	Phe	Met	Trp	Leu		
	130					135					140						
Val	Asp	Glu	Ala	Lys	Lys	Asn	Leu	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Asn		
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Glu	Gly	Arg	Asn	Ala	Glu	Lys	Val	Ser	Gln	Met	Leu	Arg	His	Phe	Asp		
			165						170					175			
Phe	Leu	Lys	Val	Pro	Arg	Ile	His	Trp	Asp	Leu	Ser	Thr	Glu	Arg	Val		
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	210					215					220						
Lys	Met	Tyr	Ser	Glu	Met	Ile	Phe	Val	Asn	Gly	Phe	Val	His	Cys	Asp		
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Glu	Phe	Arg	Leu	Asn	Tyr	Cys	His	Leu	Trp	Gln	Ser	Leu	Ile	Trp	Thr		
	275						280					285					
Asp	Met	Lys	Arg	Val	Lys	Glu	Tyr	Ser	Gln	Arg	Leu	Gly	Ala	Gly	Asp		
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Val	Asn	Arg	Gly	Ile	Ser	Gln	Ala	Pro	Val	Thr	Ala	Thr	Glu	Asp	Leu		
			325					330					335				
Glu	Ile	Arg	Asn	Asn	Ala	Ala	Asn	Tyr	Leu	Pro	Gln	Ile	Ser	His	Leu		
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	355						360					365					
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Ser	Phe	Leu	Asn	Met	Ser	Arg	Cys	Cys	Ile	Arg	Ala	Leu	Ala	Glu	His		
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Lys	Lys	Lys	Asn	Thr	Cys	Ser	Phe	Phe	Arg	Arg	Thr	Gln	Ile	Ser	Phe		
			405						410				415				
Ser	Glu	Ala	Phe	Asn	Leu	Trp	Gln	Ile	Asn	Leu	His	Glu	Leu	Ile	Leu		
		420						425					430				
Arg	Val	Lys	Gly	Leu	Lys	Leu	Ala	Asp	Arg	Val	Leu	Ala	Leu	Ile	Cys		
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455

<210> 6159

<211> 4310

<212> DNA

<213> Homo sapiens

<400> 6159

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180

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240

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<210> 6160

<211> 551

<212> PRT

<213> Homo sapiens

<400> 6160

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 50 55 60
 Asn Ile Leu Lys Thr Cys Arg Gly His Thr Leu Glu Arg Ser Val Phe
 65 70 75 80
 Ser Glu Arg Thr Glu Glu Ser Ser Ala Val Gln Tyr Phe Gln Phe Tyr
 85 90 95
 Gly Tyr Leu Ser Gln Gln Gln Asn Met Met Gln Asp Tyr Val Arg Thr
 100 105 110
 Gly Thr Tyr Gln Arg Ala Ile Leu Gln Asn His Thr Asp Phe Lys Asp
 115 120 125
 Lys Ile Val Leu Asp Val Gly Cys Gly Ser Gly Ile Leu Ser Phe Phe
 130 135 140
 Ala Ala Gln Ala Gly Ala Arg Lys Ile Tyr Ala Val Glu Ala Ser Thr
 145 150 155 160
 Met Ala Gln His Ala Glu Val Leu Val Lys Ser Asn Asn Leu Thr Asp
 165 170 175
 Arg Ile Val Val Ile Pro Gly Lys Val Glu Glu Val Ser Leu Pro Glu
 180 185 190
 Gln Val Asp Ile Ile Ile Ser Glu Pro Met Gly Tyr Met Leu Phe Asn
 195 200 205
 Glu Arg Met Leu Glu Ser Tyr Leu His Ala Lys Lys Tyr Leu Lys Pro
 210 215 220
 Ser Gly Asn Met Phe Pro Thr Ile Gly Asp Val His Leu Ala Pro Phe
 225 230 235 240
 Thr Asp Glu Gln Leu Tyr Met Glu Gln Phe Thr Lys Ala Asn Phe Trp
 245 250 255
 Tyr Gln Pro Ser Phe His Gly Val Asp Leu Ser Ala Leu Arg Gly Ala
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 Ala Val Asp Glu Tyr Phe Arg Gln Pro Val Val Asp Thr Phe Asp Ile
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 Arg Ile Leu Met Ala Lys Ser Val Lys Tyr Thr Val Asn Phe Leu Glu
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 Ala Lys Glu Gly Asp Leu His Arg Ile Glu Ile Pro Phe Lys Phe His
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 Met Leu His Ser Gly Leu Val His Gly Leu Ala Phe Trp Phe Asp Val
 325 330 335
 Ala Phe Ile Gly Ser Ile Met Thr Val Trp Leu Ser Thr Ala Pro Thr
 340 345 350
 Glu Pro Leu Thr His Trp Tyr Gln Val Arg Cys Leu Phe Gln Ser Pro
 355 360 365
 Leu Phe Ala Lys Ala Gly Asp Thr Leu Ser Gly Thr Cys Leu Leu Ile
 370 375 380
 Ala Asn Lys Arg Gln Ser Tyr Asp Ile Ser Ile Val Ala Gln Val Asp
 385 390 395 400
 Gln Thr Gly Ser Lys Ser Ser Asn Leu Leu Asp Leu Lys Asn Pro Phe
 405 410 415
 Phe Arg Tyr Thr Gly Thr Thr Pro Ser Pro Pro Pro Gly Ser His Tyr
 420 425 430
 Thr Ser Pro Ser Glu Asn Met Trp Asn Thr Gly Ser Thr Tyr Asn Leu
 435 440 445
 Ser Ser Gly Met Ala Val Ala Gly Met Pro Thr Ala Tyr Asp Leu Ser

450	455	460
Ser Val Ile Ala Ser Gly	Ser Ser Val Gly His Asn Asn Leu Ile Pro	
465	470	475
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser		480
	485	490
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser		495
	500	505
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr		510
	515	520
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr		525
	530	535
Asn Thr Met His Tyr Gly Ser		540
545	550	

<210> 6161
 <211> 1489
 <212> DNA
 <213> Homo sapiens

<400> 6161
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 120
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 180
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 240
 aaaagcagca accagcagga tgggtggaaa aaagttgctg aaggctcttc aagatcctct
 300
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 360
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 660
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 720
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 780
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 840
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 960
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 1020

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 1080
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 1140
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 1200
 aaccgtactt ccaccaccca agagtggatt ggagaaggca aaactagggc agagaagcca
 1260
 gggagtgttg agaaggtctg aaccagaca gtgggcagct gggccccaag acggatgggg
 1320
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 1380
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<210> 6162
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 6162
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 Glu Arg Lys Glu Asp Gly Gly Asn Gly Lys Lys Arg Ser Thr Leu Leu
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 Arg Lys Gly Thr Glu Pro Gly Val Val Ala His Ala Cys Asn Pro Xaa
 35 40 45
 Thr Leu Gly Gly Arg Ser Lys Glu Ile Thr
 50 55

<210> 6163
 <211> 713
 <212> DNA
 <213> Homo sapiens

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 caggtgctga gcaaggaagg gctgggaggg tcaagcaaaa tctacaagaa aaatctaaag
 180
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 240
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct ctctgaaat
 300
 gtacgagaag gtgcatgcgg ggatttcggc tgctgaaaa gcaaccctct aaaacccgag
 360
 tgtcattttt agaatcaaaa aggaaggaag gcagtggctg gctgcactgg tcagtaacga
 420
 gatctggagc ttttcgcctt aaggctcactg tttaaaactc tgccctgggt cagttgtaac
 480

agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt
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 713

<210> 6164
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 6164
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 35 40 45
 Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
 50 55 60
 Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
 65 70 75 80
 Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
 85 90 95
 Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
 100 105 110
 Ala Phe Arg Leu Lys Val Thr Val
 115 120

<210> 6165
 <211> 1004
 <212> DNA
 <213> Homo sapiens

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 180
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 420
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tcaacagcaa ttctgaaacc tgtaggggtt ggagaagagt ttgacgagga tgagctcatg
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 720
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 840
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<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

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			20					25					30		
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
			35				40					45			
Glu	Met	Leu	Ser	Lys	Lys	Gln	Glu	Phe	Leu	Glu	Lys	Lys	Ile	Glu	Gln
	50					55					60				
Glu	Leu	Thr	Ala	Ala	Lys	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala
65					70					75				80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
			85					90					95		
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100					105					110		
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
		115				120						125			
Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
	130					135					140				
Glu	Leu	Met	Gln	Asp	Ile	Ala	Asp	Gln	Gln	Glu	Leu	Ala	Glu	Glu	Ile
145				150						155				160	
Ser	Thr	Ala	Ile	Ser	Lys	Pro	Val	Gly	Phe	Gly	Glu	Glu	Phe	Asp	Glu
			165					170					175		
Asp	Glu	Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Glu	Gln	Glu	Glu	Leu	Asp
		180				185						190			
Lys	Asn	Leu	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn
	195					200						205			
Val	Pro	Ser	Ile	Ala	Leu	Pro	Ser	Lys	Pro	Ala	Lys	Lys	Lys	Glu	Glu
	210					215					220				
Glu	Asp	Asp	Asp	Met	Lys	Glu	Leu	Glu	Asn	Trp	Ala	Gly	Ser	Met	

225

230

235

<210> 6167

<211> 1220

<212> DNA

<213> Homo sapiens

<400> 6167

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120tcaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc tgttctatgt
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<210> 6168

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6168

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Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
          20           25           30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
          35           40           45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
          50           55           60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65           70           75           80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
          85           90

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<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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120
cagtgacccc aggccttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
180
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240
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300
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360
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420
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480
tcaagccctt gggagttgga agtcctgcag gtcccttggt gggagcagtt gctgagacga
540
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600
gagaaatggt tcccactgct ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc
660
ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
720

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<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

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Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala			
35	40	45	
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile			
50	55	60	
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile			
65	70	75	80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln			
85	90	95	
Leu Leu Arg Arg Arg			
100			

<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171

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180
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360
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660
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960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

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1080

tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1130

<210> 6172

<211> 292

<212> PRT

<213> Homo sapiens

<400> 6172

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			20					25					30		
Phe	Gly	Asp	His	Pro	Ile	Pro	Gln	Tyr	Glu	Val	Asn	Pro	Arg	Thr	Thr
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Glu	Ile	Leu	His	His	Leu	Ser	Glu	Arg	Asn	Arg	Val	Arg	Asp	Arg	Asp
	50					55					60				
Val	Tyr	Leu	Val	Ile	Glu	Asp	Leu	Lys	Gln	Lys	Ala	Ser	Glu	Tyr	Glu
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Ser	Glu	Ala	Lys	Tyr	Leu	Gln	Asp	Leu	Leu	Met	Glu	Ser	Val	Asn	Phe
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Ser	Pro	Ala	Asn	Leu	Ser	Ser	Thr	Gly	Ser	Arg	Tyr	Leu	Asn	Ala	Leu
			100					105					110		
Val	Asp	Ser	Ala	Val	Ala	Leu	Glu	Thr	Lys	Asp	Thr	Ser	Leu	Ala	Ser
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Phe	Ile	Pro	Ala	Val	Asn	Asp	Leu	Thr	Ser	Asp	Leu	Phe	Arg	Thr	Lys
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Ser	Lys	Ser	Glu	Glu	Ile	Lys	Ile	Glu	Leu	Glu	Lys	Leu	Glu	Lys	Asn
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Leu	Thr	Ala	Thr	Leu	Val	Leu	Glu	Lys	Cys	Leu	Gln	Glu	Asp	Val	Lys
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Lys	Ala	Glu	Leu	His	Leu	Ser	Thr	Glu	Arg	Ala	Lys	Val	Asp	Asn	Arg
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Arg	Gln	Asn	Met	Asp	Phe	Leu	Lys	Ala	Lys	Ser	Glu	Glu	Phe	Arg	Phe
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Gly	Ile	Lys	Ala	Ala	Glu	Glu	Gln	Leu	Ser	Ala	Arg	Gly	Met	Asp	Ala
	210					215					220				
Ser	Leu	Ser	His	Gln	Ser	Leu	Val	Ala	Leu	Ser	Glu	Lys	Leu	Ala	Arg
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Leu	Lys	Gln	Gln	Thr	Ile	Pro	Leu	Lys	Lys	Lys	Leu	Glu	Ser	Tyr	Leu
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Asp	Leu	Met	Pro	Asn	Pro	Ser	Leu	Ala	Gln	Val	Lys	Ile	Glu	Glu	Ala
		260						265					270		
Lys	Arg	Glu	Leu	Asp	Ser	Ile	Glu	Ala	Glu	Leu	Thr	Arg	Arg	Val	Asp
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<210> 6173

<211> 1483

<212> DNA

<213> Homo sapiens

<400> 6173

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<210> 6174

<211> 299
 <212> PRT
 <213> Homo sapiens

<400> 6174

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			20					25					30		
Gly	Tyr	Ala	Leu	Leu	Val	Ser	Asp	Leu	Gln	Gln	Val	Trp	His	Glu	Gln
		35					40					45			
Val	Asp	Thr	Ser	Val	Val	Ser	Gln	Arg	Ala	Lys	Glu	Leu	Asn	Lys	Arg
	50					55					60				
Leu	Thr	Ala	Pro	Pro	Ala	Ala	Phe	Leu	Cys	His	Leu	Asp	Asn	Leu	Leu
65					70					75				80	
Arg	Pro	Leu	Leu	Lys	Asp	Ala	Ala	His	Pro	Ser	Glu	Ala	Thr	Phe	Ser
				85					90					95	
Cys	Asp	Cys	Val	Ala	Asp	Ala	Leu	Ile	Leu	Arg	Val	Arg	Ser	Glu	Leu
			100				105					110			
Ser	Gly	Leu	Pro	Phe	Tyr	Trp	Asn	Phe	His	Cys	Met	Leu	Ala	Ser	Pro
	115						120					125			
Ser	Leu	Val	Ser	Gln	His	Leu	Ile	Arg	Pro	Leu	Met	Gly	Met	Ser	Leu
	130					135					140				
Ala	Leu	Gln	Cys	Gln	Val	Arg	Glu	Leu	Ala	Thr	Leu	Leu	His	Met	Lys
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Asp	Leu	Glu	Ile	Gln	Asp	Tyr	Gln	Glu	Ser	Gly	Ala	Thr	Leu	Ile	Arg
			165					170					175		
Asp	Arg	Leu	Lys	Thr	Glu	Pro	Phe	Glu	Glu	Asn	Ser	Phe	Leu	Glu	Gln
			180					185					190		
Phe	Met	Ile	Glu	Lys	Leu	Pro	Glu	Ala	Cys	Ser	Ile	Gly	Asp	Gly	Lys
	195						200					205			
Pro	Phe	Val	Met	Asn	Leu	Gln	Asp	Leu	Tyr	Met	Ala	Val	Thr	Thr	Gln
	210					215					220				
Glu	Val	Gln	Val	Gly	Gln	Lys	His	Gln	Gly	Ala	Gly	Asp	Pro	His	Thr
225					230					235				240	
Ser	Asn	Ser	Ala	Ser	Leu	Gln	Gly	Ile	Asp	Ser	Gln	Cys	Val	Asn	Gln
			245					250				255			
Pro	Glu	Gln	Leu	Val	Ser	Ser	Ala	Pro	Thr	Leu	Ser	Ala	Pro	Glu	Lys
			260					265				270			
Glu	Ser	Thr	Gly	Thr	Ser	Gly	Pro	Leu	Gln	Arg	Pro	Gln	Leu	Ser	Lys
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Val	Lys	Arg	Lys	Asn	Pro	Arg	Gly	Leu	Phe	Ser					
	290					295									

<210> 6175
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 6175

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 120

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 240
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<210> 6176
 <211> 90
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu
 50 55 60
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<210> 6177
 <211> 1536
 <212> DNA
 <213> Homo sapiens

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<210> 6178

<211> 310

<212> PRT

<213> Homo sapiens

<400> 6178

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			20					25					30		
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
		35					40					45			
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
	50					55					60				
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
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Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85						90					95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
		100						105				110			
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

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145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
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<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

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660

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<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

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			20					25					30		
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
		35					40					45			
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
	50					55					60				
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
65					70				75					80	
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
			85					90						95	
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
			100					105						110	
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
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Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
	130					135					140				
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
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Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165					170						175	
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
		180						185					190		
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn

5361

625		630		635		640									
Asn	Gly	Glu	Glu	Leu	His	Gly	Gly	Lys	Arg	Val	Met	Glu	Cys	Leu	Lys
		645		650		655									
Lys	Ala	Leu	Lys	Ile	Ala	Asn	Gln	Cys	Met	Asp	Pro	Ser	Leu	Gln	Val
		660		665		670									
Gln	Leu	Phe	Ile	Glu	Ile	Leu	Asn	Arg	Tyr	Ile	Tyr	Phe	Tyr	Glu	Lys
		675		680		685									
Glu	Asn	Asp	Ala	Val	Thr	Ile	Gln	Val	Leu	Asn	Gln	Leu	Ile	Gln	Lys
		690		695		700									
Ile	Arg	Glu	Asp	Leu	Pro	Asn	Leu	Glu	Ser	Ser	Glu	Glu	Thr	Glu	Gln
705		710		715		720									
Ile	Asn	Lys	His	Phe	His	Asn	Thr	Leu	Glu	His	Leu	Arg	Leu	Arg	Arg
		725		730		735									
Glu	Ser	Pro	Glu	Ser	Glu	Gly	Pro	Ile	Tyr	Glu	Gly	Leu	Ile	Leu	
		740		745		750									

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 <211> 1135
 <212> DNA
 <213> Homo sapiens

<400> 6181
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<210> 6182
<211> 236
<212> PRT
<213> Homo sapiens

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35 40 45
Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr
50 55 60
Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser
65 70 75 80
Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe
85 90 95
Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg
100 105 110
Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile
115 120 125
Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly
130 135 140
Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys
145 150 155 160
His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly
165 170 175
Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser
180 185 190
Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg
195 200 205
Val Val Phe Met Val Asp Leu Trp His Pro Asn Val Ala Ala Ala Glu
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Arg Gln Ala Leu Asp Phe Ile Phe Ala Pro Gly Arg
225 230 235

<210> 6183
<211> 2530
<212> DNA
<213> Homo sapiens

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<210> 6184

<211> 308

<212> PRT

<213> Homo sapiens

<400> 6184

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Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
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Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
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Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Glu	Ile
			85					90					95		
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
			100					105					110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
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Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
		130				135						140			
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys

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 Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
 165 170 175
 Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
 180 185 190
 His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
 195 200 205
 Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
 210 215 220
 Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
 225 230 235 240
 Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
 245 250 255
 Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
 260 265 270
 Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
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 Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
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 Val Ala Thr Thr
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<210> 6185

<211> 1231

<212> DNA

<213> Homo sapiens

<400> 6185

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<210> 6186
 <211> 133
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
 50 55 60
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
 65 70 75 80
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
 85 90 95
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 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
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 Thr Arg Leu Lys Thr
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<210> 6187
 <211> 909
 <212> DNA
 <213> Homo sapiens

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<210> 6188
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 6188
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 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
 Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met Glu Pro Ile Val Lys
 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
 130 135 140
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys
 145 150 155 160
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

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Thr	Gln	Phe	Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala				
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Pro	Arg	Glu	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Asn	Gln	Ala	Glu	Ile				
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<210> 6189

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<212> DNA

<213> Homo sapiens

<400> 6189

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2761

<210> 6190

<211> 576

<212> PRT

<213> Homo sapiens

<400> 6190

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35 40 45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
50 55 60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
65 70 75 80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
85 90 95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
100 105 110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
115 120 125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
130 135 140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145 150 155 160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
165 170 175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
180 185 190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
195 200 205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
210 215 220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225 230 235 240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
245 250 255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
260 265 270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
275 280 285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
290 295 300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
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Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
325 330 335
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Gln	Ala	Phe	Asn	His	Ile	Ala	Lys	Leu	Cys	Ser	Leu	Lys	Arg	Leu	Val				
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Leu	Tyr	Arg	Thr	Lys	Val	Glu	Gln	Thr	Ala	Leu	Leu	Ser	Ile	Leu	Asn				
	435						440					445							
Phe	Cys	Ser	Glu	Leu	Gln	His	Leu	Ser	Leu	Gly	Ser	Cys	Val	Met	Ile				
	450					455				460									
Glu	Asp	Tyr	Asp	Val	Ile	Ala	Ser	Met	Ile	Gly	Ala	Lys	Cys	Lys	Lys				
465					470					475					480				
Leu	Arg	Thr	Leu	Asp	Leu	Trp	Arg	Cys	Lys	Asn	Ile	Thr	Glu	Asn	Gly				
			485					490						495					
Ile	Ala	Glu	Leu	Ala	Ser	Gly	Cys	Pro	Leu	Leu	Glu	Glu	Leu	Asp	Leu				
			500					505					510						
Gly	Trp	Cys	Pro	Thr	Leu	Gln	Ser	Ser	Thr	Gly	Cys	Phe	Thr	Arg	Leu				
	515						520					525							
Ala	His	Gln	Leu	Pro	Asn	Leu	Gln	Lys	Leu	Phe	Leu	Thr	Ala	Asn	Arg				
	530					535					540								
Ser	Val	Cys	Asp	Thr	Asp	Ile	Asp	Glu	Leu	Ala	Cys	Asn	Cys	Thr	Arg				
545					550					555					560				
Leu	Gln	Gln	Leu	Asp	Ile	Leu	Gly	Thr	Arg	Met	Val	Ser	Pro	Ala	Ser				
			565					570						575					
Leu	Arg	Lys	Leu	Leu	Glu	Ser	Cys	Lys	Asp	Leu	Ser	Leu	Leu	Asp	Val				
	580							585				590							
Ser	Phe	Cys	Ser	Gln	Ile	Asp	Asn	Arg	Ala	Val	Leu	Glu	Leu	Asn	Ala				

	595		600		605
Ser	Phe Pro Lys Val Phe Ile Lys Lys Ser Phe Thr Gln				
610		615		620	

<210> 6195
 <211> 518
 <212> DNA
 <213> Homo sapiens

<400> 6195
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 180
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 240
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 300
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 420
 tgagcggagt gggcagccct gcctgggagc tccagcctcc tgcacccacg tgcccccttg
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 518

<210> 6196
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 6196
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 20 25 30
 Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr
 35 40 45
 Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
 50 55 60
 Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
 65 70 75 80
 Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
 85 90 95
 Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
 100 105 110
 His Arg Thr Gly Trp
 115

<210> 6197
 <211> 2841

<212> DNA

<213> Homo sapiens

<400> 6197

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120
aataccaggt acagcctttc cccgctcatc cagagcagga caaacaggcc aggtgggtatc
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240
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360
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420
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540
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2700
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<210> 6198

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

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20	25	30	
Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
35	40	45	
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
50	55	60	
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
65	70	75	80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
85	90	95	
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
100	105	110	
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
115	120		

<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

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 240
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1777

<210> 6200

<211> 164

<212> PRT

<213> Homo sapiens

<400> 6200

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Phe	Trp	Glu	Glu	Gly	Ser	Ala	Pro	Arg	Pro	Gln	Glu	Ser	Arg	Gln	Arg
			20					25					30		
Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
		35					40					45			
Val	Gly	Val	Pro	Xaa	Arg	Ser	Pro	His	Pro	Gln	Gly	Gly	Phe	Thr	His
	50					55					60				
Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
65					70				75					80	
Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
			85					90					95		
Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
		100						105					110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
	115						120					125			
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
	130					135					140				
Gly	Val	Leu	Ser	Pro	Phe	Pro	Pro	Leu	Val	Gln	Gly	Gln	Pro	Ser	Arg

145
Ser Ser Trp Phe

150

155

160

<210> 6201
<211> 604
<212> DNA
<213> Homo sapiens

<400> 6201
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120
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180
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240
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300
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360
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420
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480
atcacgcagg tgcacagggt gaacgtcagg actgaaacgg aagacaatgt ccccatgcaa
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600
gccg
604

<210> 6202
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6202
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Pro Ser Asp Arg Met Arg Asp Arg Asn Ala Gln Gln Arg Ala Ile Gln
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Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg
35 40 45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
50 55 60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
65 70 75 80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
85 90 95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
100 105 110
Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

115

120

<210> 6203

<211> 3462

<212> DNA

<213> Homo sapiens

<400> 6203

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120

gacggattgg gaggtttgtc tacagatttt gagcgttcga agttgacccc tgactaagta
180

tactttgctg ctccctcagc ctttgaaaaa atgtctgtca catatgatga ttccgttgga
240

gtagaagtgt ccagcgacag cttctgggag gtcgggaact acaagcggac tgtgaagcgg
300

atcgacgatg gccaccgcct gtgcagcgac ctcatgaact gcctgcatga gcgggcgcg
360

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420

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540

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660

gaggtagaag cagcaaagaa agcccaccat gcagcgtgca aagaggagaa gctggctatc
720

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780

caagacaaaa tagaaaagtg caagcaagat gttcttaaga ccaaagagaa gtatgagaag
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900

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1200

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 3360
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 3462

<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

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			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
		35					40					45			
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Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser					
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Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg					
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Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp					
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<211> 926

<212> DNA

<213> Homo sapiens

<400> 6205

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 Thr Ser Ala Lys Leu Asn His Gln Val Ser Glu Val Phe Asn Thr Val
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<212> PRT

<213> Homo sapiens

<400> 6208

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<211> 2269

<212> DNA

<213> Homo sapiens

<400> 6209

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<212> PRT
<213> Homo sapiens

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Lys Pro Pro Cys Ser Glu Gly Ser Pro Trp Arg Cys Pro His Phe Thr
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Arg Gln Ala Cys Val Trp Thr Ser Ala Gly Ala Ala Ala Leu Arg Leu
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Ala Arg Glu Arg Gln Arg Trp Val Phe Arg Phe His Ala Tyr Val Trp
115 120 125
Ala His Ser Gln His Gly Arg Val Ser Ala Val Leu Val Leu Thr Leu
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2160

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2163

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<211> 209

<212> PRT

<213> Homo sapiens

<400> 6212

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Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
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<211> 1160

<212> DNA

<213> Homo sapiens

<400> 6213

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<210> 6214
 <211> 101
 <212> PRT
 <213> Homo sapiens

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 Pro Pro Pro Pro Thr Pro Pro Thr Cys Ile Ala Gln Ile Gln
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 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg
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<210> 6216
 <211> 87
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 <213> Homo sapiens

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 35 40 45
 Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
 50 55 60
 Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys
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<210> 6217
 <211> 2955
 <212> DNA
 <213> Homo sapiens

<400> 6217

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<211> 133

<212> PRT

<213> Homo sapiens

<400> 6218

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Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly			
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Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln			
	50	55	60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser			
65	70	75	80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr			
	85	90	95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro			
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<210> 6219

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 6219

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<210> 6220
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 6220

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Ser Ala Gly Asn Thr Ala Arg Cys Pro Gln Thr Pro Gly Ser Ala Gln
          35           40           45
Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
          50           55           60
Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
65           70           75           80
Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp
          85           90           95
Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro
          100          105          110
Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg
          115          120          125
Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala
          130          135          140
Trp Gly Asp Gly Glu Gln Ala Pro Pro Arg Ala Ser Ser Glu Gly Gly
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<210> 6221
 <211> 1487
 <212> DNA
 <213> Homo sapiens

<400> 6221

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<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

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			20					25					30		
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Pro	Thr	Ser	Gly	Asp	Glu	Tyr	Ser	Arg	Gly	Phe	Leu	Gln	Asn	Leu	Asn
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Asp	Glu	Asp	Gly	Lys	Pro	Phe	Asn	Gln	Arg	Ser	Leu	Leu	Leu	Gly	His
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<210> 6224
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 6224
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 Asn Pro Glu Gly Gly Val Asn His Glu Asn Gly Met Asn Arg Asp Gly
 50 55 60
 Gly Met Ile Pro Glu Gly Gly Gly Gly Asn Gln Glu Pro Arg Gln Gln
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 Gln Pro Glu Asn Met Gln Pro Arg Thr Arg Arg Thr Lys Phe Thr Leu
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 Leu Gln Val Glu Glu Leu Glu Ser Val Phe Arg His Thr Gln Tyr Pro
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<210> 6225
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 <212> DNA
 <213> Homo sapiens

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<210> 6226
<211> 246
<212> PRT
<213> Homo sapiens

<400> 6226
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35 40 45
Lys Gln Ser Val Asn Arg Gly Phe Thr Lys Asp Lys Thr Leu Ser Ser
50 55 60
Ile Phe Asn Ile Glu Met Val Lys Glu Lys Thr Ala Glu Glu Ile Lys
65 70 75 80
Gln Ile Trp Gln Gln Tyr Phe Ala Ala Lys Asp Thr Val Tyr Ala Val
85 90 95
Ile Pro Ala Glu Lys Phe Asp Leu Ile Trp Asn Arg Ala Gln Ser Cys
100 105 110
Pro Thr Phe Leu Cys Ala Leu Pro Arg Arg Glu Gly Tyr Glu Phe Phe
115 120 125
Val Gly Gln Trp Thr Gly Thr Glu Leu His Phe Thr Ala Leu Ile Asn
130 135 140
Ile Gln Thr Arg Gly Glu Ala Ala Ala Ser Gln Leu Ile Leu Tyr His
145 150 155 160
Tyr Pro Glu Leu Lys Glu Glu Lys Gly Ile Val Leu Met Thr Ala Glu
165 170 175
Met Asp Ser Thr Phe Leu Asn Val Ala Glu Ala Gln Cys Ile Ala Asn
180 185 190
Gln Val Gln Leu Phe Tyr Ala Thr Asp Arg Lys Glu Thr Tyr Gly Leu
195 200 205
Val Glu Thr Phe Asn Leu Arg Pro Asn Glu Phe Lys Tyr Met Ser Val
210 215 220
Ile Ala Glu Leu Glu Gln Ser Gly Leu Gly Ala Glu Leu Lys Cys Ala
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Gln Asn Gln Asn Lys Thr

245

<210> 6227
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 <212> DNA
 <213> Homo sapiens

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 720
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 830

<210> 6228
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 6228
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 20 25 30
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 35 40 45
 Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
 50 55 60
 Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
 65 70 75 80
 Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

5410

				85					90					95					
Pro	Val	Asp	Ser	Phe	Phe	Ser	Leu	Leu	Thr	Ser	Glu	Arg	Val	Ala	Lys				
			100					105					110						
Gln	Phe	Pro	Val	Met	Thr	Glu	Ala	Ile	Thr	Gln	Ile	Arg	Ala	Lys	Gly				
		115					120					125							
Leu	Gln	Thr	Ala	Val	Leu	Ser	Asn	Asn	Phe	Tyr	Leu	Pro	Asn	Gln	Lys				
	130					135					140								
Ser	Phe	Leu	Pro	Leu	Asp	Arg	Lys	Gln	Phe	Asp	Val	Ile	Val	Glu	Ser				
145					150					155				160					
Cys	Met	Glu	Gly	Ile	Cys	Lys	Pro	Asp	Pro	Arg	Ile	Tyr	Lys	Leu	Cys				
				165				170					175						
Leu	Glu	Gln	Leu	Gly	Leu	Gln	Pro	Ser	Glu	Ser	Ile	Phe	Leu	Asp	Asp				
			180				185				190								
Leu	Gly	Thr	Asn	Leu	Lys	Glu	Ala	Ala	Arg	Leu	Gly	Ile	His	Thr	Ile				
	195					200					205								
Lys	Val	Asn	Asp	Pro	Glu	Thr	Ala	Val	Lys	Glu	Leu	Glu	Ala	Leu	Leu				
	210				215					220									
Gly	Phe	Thr	Leu	Arg	Val	Gly	Val	Pro	Asn	Thr	Arg	Pro	Val	Lys	Lys				
225				230				235						240					
Thr	Met	Glu	Ile	Pro	Lys	Asp	Ser	Leu	Gln	Lys	Tyr	Leu	Lys	Asp	Leu				
				245				250					255						
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<210> 6229

<211> 3105

<212> DNA

<213> Homo sapiens

<400> 6229

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120
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180
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240
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300
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360
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540
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720

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<210> 6230

<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

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Ser	Leu	Val	Ser	Ala	Leu	Asp	Ser	Met	Cys	Ser	Ala	Leu	Ser	Lys	Leu	35	40	45	
Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val	50	55	60	
Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu	65	70	75	80
Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro	85	90	95	
Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg	100	105	110	
Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu	115	120	125	
Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu	130	135	140	
Gly	Arg	Ala	Ser	Val	Val	Pro	Leu	Pro	Tyr	Glu	Arg	Leu	Leu	Arg	Glu	145	150	155	160
Pro	Gly	Leu	Leu	Ala	Val	Gln	Gly	Leu	Pro	Glu	Gly	Leu	Ala	Phe	Arg				

5414

595					600					605					
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610						615					620				
Lys	Ile	Leu	Glu	Ala	Ser	Asn	Ser	Ile	Gln	Phe	Val	Ile	Lys	Arg	Pro
625					630					635					640
Glu	Leu	Leu	Thr	Glu	Gly	Val	Lys	Glu	Pro	Ile	Val	Asp	Ser	Gln	Glu
			645					650						655	
Arg	Asp	Ser	Gly	Asp	Pro	Leu	Val	Asp	Glu	Ser	Leu	Lys	Arg	Gln	Gly
			660					665					670		
Phe	Gln	Glu	Asn	Tyr	Asp	Ala	Arg	Leu	Ser	Arg	Ile	Asp	Ile	Ala	Asn
		675					680					685			
Thr	Leu	Arg	Glu	Gln	Val	Gln	Asp	Leu	Phe	Asn	Lys	Lys	Tyr	Gly	Glu
	690					695					700				
Ala	Leu	Gly	Ile	Lys	Tyr	Pro	Val	Gln	Val	Pro	Tyr	Lys	Arg	Ile	Lys
705					710					715					720
Ser	Asn	Pro	Gly	Ser	Val	Ile	Ile	Glu	Gly	Leu	Pro	Pro	Gly	Ile	Pro
			725					730						735	
Phe	Arg	Lys	Pro	Cys	Thr	Phe	Gly	Ser	Gln	Asn	Leu	Glu	Arg	Ile	Leu
		740					745						750		
Ala	Val	Ala	Asp	Lys	Ile	Lys	Phe	Thr	Val	Thr	Arg	Pro	Phe	Gln	Gly
	755					760					765				
Leu	Ile	Pro	Lys	Pro	Asp	Glu	Asp	Asp	Ala	Asn	Arg	Leu	Gly	Glu	Lys
	770					775					780				
Val	Ile	Leu	Arg	Glu	Gln	Val	Lys	Glu	Leu	Phe	Asn	Glu	Lys	Tyr	Gly
785				790						795					800
Glu	Ala	Leu	Gly	Leu	Asn	Arg	Pro	Val	Leu	Val	Pro	Tyr	Lys	Leu	Ile
			805					810						815	
Arg	Asp	Ser	Pro	Asp	Ala	Val	Glu	Val	Thr	Gly	Leu	Pro	Asp	Asp	Ile
		820					825						830		
Pro	Phe	Arg	Asn	Pro	Asn	Thr	Tyr	Asp	Ile	His	Arg	Leu	Glu	Lys	Ile
	835					840						845			
Leu	Lys	Ala	Arg	Glu	His	Val	Arg	Met	Val	Ile	Ile	Asn	Gln	Leu	Gln
	850					855					860				
Pro	Phe	Ala	Glu	Ile	Cys	Asn	Asp	Ala	Lys	Val	Pro	Ala	Lys	Asp	Ser
865				870						875					880
Ser	Ile	Pro	Lys	Arg	Lys	Arg	Lys	Arg	Val	Ser	Glu	Gly	Asn	Ser	Val
			885					890						895	
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Pro	Asp	Ser
		900					905						910		
Val	Ala	Ser	Ala	Asn	Gln	Ile	Ser	Leu	Val	Gln	Trp	Pro	Met	Tyr	Met
	915					920						925			
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<210> 6231

<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

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120

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<210> 6232
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 6232
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 Lys Lys Ser Met Leu Gly Gln Lys Ser Gly Pro Ser Gly Leu Leu Thr
 35 40 45
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
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 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly
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<210> 6233
 <211> 894
 <212> DNA
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<210> 6234

<211> 230

<212> PRT

<213> Homo sapiens

<400> 6234

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Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
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Glu	Pro	Glu	Pro	Ala	Ala	Gly	Pro	Gln	Ala	Glu	Glu	Ser	Ala	Thr	Val
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Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
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<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys	35	40	45	
Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro	50	55	60	
Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe	65	70	75	80
Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu	85	90	95	
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly	100	105	110	
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu	115	120	125	
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val	130	135	140	
Asn	Asp	Cys	Ser	Leu	Ile	His	Asn	Asn	Val	Cys	Met	Ala	Ala	Val	Phe	145	150	155	160
Val	Asp	Arg	Ala	Gly	Glu	Trp	Lys	Leu	Gly	Gly	Leu	Asp	Tyr	Met	Tyr	165	170	175	
Ser	Ala	Gln	Gly	Asn	Gly	Gly	Gly	Pro	Pro	Arg	Lys	Gly	Ile	Pro	Glu	180	185	190	
Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser	Gly	Arg	Val	195	200	205	
Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly	Cys	Leu	Ile	210	215	220	
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225		230		235		240
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Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly						
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Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys						
	355	360	365			
Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln						
	370	375	380			
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385	390	395	400			
Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn Pro Ala Ile						
	405	410	415			
Arg Glu Gln Thr Val Lys Ser Met Leu Leu Leu Ala Pro Lys Leu Asn						
	420	425	430			
Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln						
	435	440	445			
Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu						
	450	455	460			
Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu						
465	470	475	480			
Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala Pro Ser Arg						
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	530	535	540			
Phe Leu Ser Lys Leu Glu Ser Val Ser Glu Asp Pro Thr Gln Leu Glu						
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Glu Val Glu Lys Asp Val His Ala Ala Ser Ser Pro Gly Met Gly Gly						
	565	570	575			
Ala Ala Ala Ser Trp Ala Gly Trp Ala Val Thr Gly Val Ser Ser Leu						
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Thr Ser Lys Leu Ile Arg Ser His Pro Thr Thr Ala Pro Thr Glu Thr						
	595	600	605			
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	610	615	620			
Thr Pro Val Pro Ala Thr Pro Thr Thr Ser Gly His Trp Glu Thr Gln						
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<400> 6238
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Ser	Thr	Pro	Lys	Asn	Gly	Met	Ser	Ser	Lys	Ser	Arg	Lys	Arg	Ile	Met
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Pro	Asp	Pro	Val	Thr	Glu	Pro	Pro	Val	Thr	Asp	Pro	Val	Tyr	Glu	Ala
	50					55				60					
Leu	Leu	Tyr	Cys	Asn	Ile	Pro	Ser	Val	Ala	Glu	Arg	Ser	Met	Glu	Gly
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His	Ala	Pro	His	His	Phe	Lys	Leu	Val	Ser	Val	His	Val	Phe	Ile	Arg
			85					90						95	
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Glu	Ile	Asp	Cys	Thr	Leu	Val	Ala	Asn	Arg	Lys	Pro	Tyr	His	Pro	Lys
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<210> 6239

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6239

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Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
85 90 95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
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Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
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165 170 175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
180 185 190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
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<211> 1515
<212> DNA
<213> Homo sapiens

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<210> 6242

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6242

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Arg	Phe	Lys	Leu	Leu	Lys	Gly	Ala	Glu	His	Ile	Thr	Thr	Tyr	Thr	Phe		
			165					170						175			
Asn	Thr	His	Lys	Ala	Gln	His	Thr	Phe	Cys	Lys	Arg	Cys	Gly	Val	Gln		
			180					185					190				
Ser	Phe	Tyr	Thr	Pro	Arg	Ser	Asn	Pro	Gly	Gly	Phe	Gly	Ile	Ala	Pro		
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Asn	Gly	Ser	Asp	Trp	Glu	Lys	Ala	Met	Lys	Glu	His	Lys	Thr	Ile	Lys		
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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 6244

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<212> DNA

<213> Homo sapiens

<400> 6245

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<210> 6246

<211> 1286

<212> PRT

<213> Homo sapiens

<400> 6246

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Ile	Leu	Ser	Glu	Gln	Lys	Ala	Met	Ile	Asn	Ala	Met	Asp	Ser	Lys	Ile
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Lys	Ile	Ser	His	Gln	Asp	His	Ser	Asp	Lys	Asn	Arg	Leu	Leu	Glu	Leu
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Gln Leu Arg Gln Ala Lys Thr	Glu Leu Glu Glu Thr Thr	Ala Glu Ala				
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Glu Glu Glu Ile Gln Ala Leu Thr	Ala His Arg Asp Glu Ile Gln Arg					
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Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val	Ile Thr Asp Leu Glu					
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Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala Ser Gly Ala Asn Asp						
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Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu Ile						
	260		265		270	
Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu Ala						
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Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Met Asp Leu Glu						
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Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala Trp						
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Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val Arg						
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Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg Ala						
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Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val Lys						
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Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln Ala Leu Lys Glu Gln						
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Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu Asn Asp Leu Glu Lys						
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Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu						
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Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys						
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Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr						
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Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr Glu						
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Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser						
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His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu						
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Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys Lys						
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Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys						
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Ala Arg Cys Ala Glu Leu Glu Glu Ala Leu Gln Lys Thr Arg Ile Glu						
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Leu Arg Ser Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp His						
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Pro His Pro Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met Ser						
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5433

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Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg		1040
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Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser		1055
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Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro		1070
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Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn		1085
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Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro		1100
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Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala		1120
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His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly		1165
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Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro		1180
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Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His		1200
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Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly		1215
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<211> 497

<212> DNA

<213> Homo sapiens

<400> 6247

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<400> 6250
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 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met
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 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile
 115 120 125
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg
 130 135 140
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser
 145 150 155 160
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

				165					170					175					
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			180					185					190						
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		195					200					205							
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	210					215				220									
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<210> 6251

<211> 1611

<212> DNA

<213> Homo sapiens

<400> 6251

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1080

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<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

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Ala	Lys	Ser	Ser	Lys	Gly	Lys	Gly	Arg	Gly	His	Ser	Gly	Glu	Asn	Ser
			20					25					30		
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
		35					40					45			
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
	50					55					60				
Ile	Leu	Leu	Ser	Pro	Ser	Pro	Pro	Trp	Arg	Thr	Leu	Ala	Arg	Val	Tyr
65					70				75					80	
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
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			100												

<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

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 240

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<210> 6254

<211> 216

<212> PRT

<213> Homo sapiens

<400> 6254

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			20					25					30		
Glu	Ala	Thr	Leu	Gly	Ser	Gly	Asn	Leu	Arg	Gln	Ala	Val	Met	Leu	Pro
		35					40					45			
Glu	Gly	Glu	Asp	Leu	Asn	Glu	Trp	Ile	Ala	Val	Asn	Thr	Val	Asp	Phe
	50					55					60				
Phe	Asn	Gln	Ile	Asn	Met	Leu	Tyr	Gly	Thr	Ile	Thr	Glu	Phe	Cys	Thr
65					70					75				80	
Glu	Ala	Ser	Cys	Pro	Val	Met	Ser	Ala	Gly	Pro	Arg	Tyr	Glu	Tyr	His
			85						90					95	
Trp	Ala	Asp	Gly	Thr	Asn	Ile	Lys	Lys	Pro	Ile	Lys	Cys	Ser	Ala	Pro
			100					105					110		
Lys	Tyr	Ile	Asp	Tyr	Leu	Met	Thr	Trp	Val	Gln	Asp	Gln	Leu	Asp	Asp
		115					120					125			
Glu	Thr	Leu	Phe	Pro	Ser	Lys	Ile	Gly	Val	Pro	Phe	Pro	Lys	Asn	Phe
		130				135					140				
Met	Ser	Val	Ala	Lys	Thr	Ile	Leu	Lys	Arg	Leu	Phe	Arg	Val	Tyr	Ala
145					150					155				160	
His	Ile	Tyr	His	Gln	His	Phe	Asp	Ser	Val	Met	Gln	Leu	Gln	Glu	Glu
			165						170					175	
Ala	His	Leu	Asn	Thr	Ser	Phe	Lys	His	Phe	Ile	Phe	Phe	Val	Gln	Glu
			180					185					190		
Phe	Asn	Leu	Ile	Asp	Arg	Arg	Glu	Leu	Ala	Pro	Leu	Gln	Glu	Leu	Ile
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Glu	Lys	Leu	Gly	Ser	Lys	Asp	Arg								
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<210> 6255

<211> 622

<212> DNA

<213> Homo sapiens

<400> 6255

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180
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240

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 360
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 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 6256
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 His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
 35 40 45
 Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
 50 55 60
 Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
 65 70 75 80
 Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
 85 90 95
 Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
 100 105 110
 Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
 115 120 125
 Glu Lys Met Arg Ser Ala Arg Arg Arg Gln Gln His Gln Ser Tyr Ser
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 145 150

<210> 6257
 <211> 2216
 <212> DNA
 <213> Homo sapiens

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 120
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 180

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240
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1080
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<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

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Phe	Gln	Ala	Leu	Gln	Arg	Leu	His	Met	Thr	Ile	Phe	Ser	Gln	Ser	Val
			20					25					30		
Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile
		35					40					45			
Ala	Ile	Phe	Ser	Leu	Ser	Ser	Ala	Leu	Ser	Ser	Glu	Ala	Lys	Glu	Glu
	50					55					60				
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
65				70					75					80	
Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Leu	Ser	Ala	Gly	Asp	Gly	Glu
			85					90					95		
Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
			100					105					110		
Leu	Trp	Arg	Arg	Gln	Pro	Pro	Tyr	Arg	Thr	Ser	Leu	Glu	Val	Pro	Glu
		115					120					125			
Ile	Asn	Ala	Leu	Leu	Leu	Val	Pro	Lys	Glu	Asn	Ser	Leu	Ile	Leu	Ala
	130					135					140				
Gly	Gly	Asp	Cys	Gln	Leu	His	Thr	Met	Asp	Leu	Glu	Thr	Gly	Thr	Phe
145				150					155					160	
Thr	Arg	Val	Leu	Arg	Gly	His	Thr	Asp	Tyr	Ile	His	Cys	Leu	Ala	Leu
			165					170					175		
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
			180					185				190			
Arg	Leu	Trp	Asp	Leu	Arg	Thr	Ala	Lys	Glu	Val	Gln	Thr	Ile	Glu	Ser
	195					200					205				
Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
	210					215					220				
Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
225				230					235					240	
Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
			245					250					255		
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<210> 6259
<211> 384
<212> DNA
<213> Homo sapiens
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180
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240
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300
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384
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<212> PRT
<213> Homo sapiens
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Leu	Glu	Ile	Pro	Asp	Ala	Phe	Asp	Arg	Thr	Glu	Asn	Met	Leu	Ser	Met	
			20					25					30			
Gln	Lys	Asn	Glu	Lys	Ile	Lys	Tyr	Ser	Arg	Phe	Ala	Ala	Thr	Asn	Thr	
		35					40					45				
Arg	Val	Lys	Ala	Lys	Gln	Lys	Pro	Leu	Ile	Ser	Asn	Ser	His	Thr	Asp	
	50					55					60					
His	Leu	Met	Gly	Cys	Thr	Lys	Ser	Ala	Glu	Pro	Gly	Thr	Glu	Thr	Ser	
65					70					75					80	
Gln	Val	Asn	Ser	Phe	Ser	Asp	Leu	Lys	Ala	Ser	Thr	Leu	Val	His	Lys	
				85					90					95		
Pro	Gln	Ser	Asp	Phe	Thr	Asn	Asp	Ala	Leu	Ser	Pro	Lys	Phe	Asn	Leu	
			100					105					110			
Ser	Ser	Ser	Ile	Ser	Ser	Glu	Asn	Ser	Leu	Ile	Lys	Gly	Gly	Ala	Ala	

115

120

125

<210> 6261

<211> 3619

<212> DNA

<213> Homo sapiens

<400> 6261

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120

ggtcggggcc attttccggg ccgggcgcac taagggtgcgc ggccccgggg ccagtatat
180

gacccgccgt cctgctatcc ttcgcttccc ccgccccatg tggctgcggg gccgcggcgg
240

cgctgcccac tatggcccgg aaagtagtta gcaggaagcg gaaagcgccc gcctcgccgg
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gagctgggag cgacgctcat gggcccgagc tttggctggg atcactcgct tcacaaaagg
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ctacagaatg aaaccagcta ctctcgagtg ttgcatgggt atgcagcaca gcaacttccc
480

agtctcctga aggagagaga gtttcacctt gggaccctta ataaagtgtt tgcactctag
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720

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<400> 6262
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 Gly Thr Leu Asn Lys Val Phe Ala Ser Gln Trp Leu Asn His Arg Gln
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 Thr Ser Gln Ile Thr Lys Ile Pro Ile Leu Lys Asp Arg Glu Pro Gly
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 His Lys Asp Trp Ile Phe Ser Ile Ala Trp Ile Ser Asp Thr Met Ala
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Ile	Arg	Ser	Val	Ser	Phe	Tyr	Glu	His	Ile	Ile	Thr	Val	Gly	Thr	Gly
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Gln	Gly	Ser	Leu	Leu	Phe	Tyr	Asp	Ile	Arg	Ala	Gln	Arg	Phe	Leu	Glu
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Glu	Arg	Leu	Ser	Ala	Cys	Tyr	Gly	Ser	Lys	Pro	Arg	Leu	Ala	Gly	Glu
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Trp	Arg	Asn	Tyr	Phe	Ser	Asp	Ile	Asp	Phe	Phe	Pro	Asn	Ala	Val	Tyr
385					390				395						400
Thr	His	Cys	Tyr	Asp	Ser	Ser	Gly	Thr	Lys	Leu	Phe	Val	Ala	Gly	Gly
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<210> 6263

<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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 <213> Homo sapiens

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 Asn Gly Ile Leu Gln Ser Glu Tyr Gly Gly Glu Thr Ile Pro Gly Pro
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 65 70 75 80
 Ser Ser Ala Phe Arg Pro Val Met Pro Ser Arg Gln Ile Val Glu Arg
 85 90 95
 Gln Pro Arg Met Leu Asp Phe Arg Val Glu Tyr Arg Asp Arg Asn Val
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 115 120 125
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 130 135 140
 Trp Lys Thr Gly Asp Val Glu Asp Ser Thr Val Leu Lys Ser Leu His
 145 150 155 160
 Leu Pro Lys Asn Asn Ser Leu Tyr Val Leu Thr Pro Asp Leu Pro Pro
 165 170 175
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 180 185 190
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 225 230 235 240
 Pro Thr Ser Ala Thr Asp Asp Ser Met Cys Leu Ala Glu Ser Gly Leu
 245 250 255
 Ser Tyr Pro Cys His Arg Leu Thr Val Gly Arg Arg Ser Ser Pro Ala
 260 265 270
 Gln Thr Arg Glu Gln Ser Glu Glu Gln Ile Thr Asp Val His Met Val

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Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser					
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Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp					
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Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys					
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His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala					
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Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His					
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His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys					
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Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala					
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Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys					
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Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys					
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Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser					
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Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu					
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Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln					
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Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys					
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Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu					
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Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg					
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Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala					
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Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro					
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Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser Leu Leu Glu Val					
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<210> 6265

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

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<210> 6266

<211> 240

<212> PRT

<213> Homo sapiens

<400> 6266

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Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
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His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
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Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
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Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
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Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
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Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
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      195          200          205
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<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268

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 35 40 45
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<210> 6269

<211> 923

<212> DNA

<213> Homo sapiens

<400> 6269

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<210> 6270

<211> 307
 <212> PRT
 <213> Homo sapiens

<400> 6270

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Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
          35           40           45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
          50           55           60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
65           70           75           80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
          85           90           95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
          100          105          110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
          115          120          125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
          130          135          140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
145          150          155          160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
          165          170          175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
          180          185          190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
          195          200          205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
          210          215          220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
225          230          235          240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
          245          250          255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
          260          265          270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
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<400> 6271

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<210> 6272

<211> 296

<212> PRT

<213> Homo sapiens

<400> 6272

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25	Thr	Val	Gly
30	Ala	Ile	Phe
35	Thr	Cys	Pro
40	Leu	Gln	Ser
45	Ser	Ser	Arg
50	Leu	Ala	Leu
55	Arg	Leu	Arg
60	Thr	Val	Thr
65	Met	Val	Arg
70	Pro	Thr	Ser
75	Val	Thr	Pro
80	Gly	Leu	Phe
85	Gln	Val	Leu
90	Lys	Ala	Val
95	Ala	Val	Tyr
100	Phe	Ala	Cys
105	Tyr	Ser	Lys
110	Ala	Lys	Glu
115	Gln	Phe	Asn
120	Gly	Ala	Gly
125	Ser	Ala	Gly
130	Thr	Val	His
135	Leu	Val	His
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<210> 6273

<211> 2355

<212> DNA

<213> Homo sapiens

<400> 6273

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240

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<210> 6274
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 <212> PRT
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<400> 6274
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 Gln Ala Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln Arg Leu Leu
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<210> 6275
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 <212> DNA
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<211> 172

<212> PRT

<213> Homo sapiens

<400> 6276

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			20					25					30		
Asp	Asp	Leu	Ser	Asn	Ala	Ala	Arg	Glu	Leu	Arg	Val	Leu	Ile	Asp	Asp
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Ser	Gln	Ser	Ile	Ile	Phe	Ile	Asn	Leu	Asp	Ser	His	Arg	Asn	Val	Met
	50					55					60				
Ile	Arg	Leu	Asn	Leu	Gln	Leu	Thr	Met	Gly	Thr	Phe	Ser	Leu	Ser	Leu

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Glu	Glu	Asp	His	Arg	Ile	Phe	Trp	Leu	Ile	Thr	Gly	Ile	Met	Phe	Met
			100					105					110		
Gly	Ser	Gly	Leu	Ile	Trp	Arg	Arg	Leu	Leu	Ser	Phe	Leu	Gly	Arg	Gln
		115				120						125			
Leu	Glu	Ala	Pro	Leu	Pro	Pro	Met	Met	Ala	Ser	Leu	Pro	Lys	Lys	Thr
	130					135					140				
Leu	Leu	Ala	Asp	Arg	Ser	Met	Glu	Leu	Lys	Asn	Ser	Leu	Arg	Leu	Asp
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<210> 6277

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 6277

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<210> 6278

<211> 399

<212> PRT

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<400> 6278

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Gly	Val	Lys	Leu	Met	Asp	Phe	Gln	Ala	His	Arg	Arg	Gly	Gly	Thr	Leu
			20					25					30		
Asn	Arg	Lys	His	Ile	Ser	Pro	Ala	Phe	Gln	Pro	Pro	Leu	Pro	Pro	Thr
		35					40					45			
Asp	Gly	Ser	Thr	Val	Val	Pro	Ala	Gly	Pro	Glu	Pro	Pro	Pro	Gln	Ser
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Pro	Lys	Asp	Pro	Val	Ser	Ala	Ala	Val	Pro	Ala	Pro	Xaa	Glu	Lys	Gln
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Gln	Ser	Asp	Ser	Ile	Trp	Pro	Lys	Ser	Ala	Pro	Gly	Ser	Cys	Trp	Leu
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Pro	Pro	Ala	Leu	His	Gly	Pro	Pro	His	Asn	Ala	Ala	Gly	Pro	Ser	Pro
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His	Thr	Leu	Arg	Arg	Ala	Val	Lys	Lys	Pro	Ala	Pro	Ala	Pro	Pro	Lys
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Thr	Ser	Gln	His	Pro	Pro	Ser	Leu	Ser	Pro	Lys	Pro	Pro	Thr	Arg	Ser
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		195					200					205			
Pro	Pro	Pro	Ser	Ser	Gln	His	Pro	Gly	Gly	Thr	Pro	Xaa	Ser	Leu	Ser
	210					215					220				
Pro	Ile	Gln	Ala	Pro	Asn	His	Pro	Pro	Pro	Gln	Pro	Pro	Thr	Gln	Ala
225					230					235				240	
Thr	Pro	Leu	Met	His	Thr	Lys	Pro	Asn	Ser	Gln	Gly	Pro	Pro	Asn	Pro
				245					250					255	
Met	Ala	Leu	Pro	Ser	Glu	His	Gly	Leu	Glu	Gln	Pro	Ser	His	Thr	Pro
		260						265					270		
Pro	Gln	Thr	Pro	Thr	Pro	Pro	Ser	Thr	Pro	Pro	Leu	Gly	Lys	Gln	Asn
		275					280					285			
Pro	Ser	Leu	Pro	Ala	Pro	Gln	Thr	Leu	Ala	Gly	Gly	Asn	Pro	Glu	Thr
	290					295					300				
Ala	Gln	Pro	His	Ala	Gly	Thr	Leu	Pro	Arg	Pro	Arg	Pro	Val	Pro	Lys

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		325		330		335									
His	Ser	Ala	Gly	Asp	Ser	Ser	Leu	Thr	Asn	Thr	Ala	Pro	Thr	Ala	Ser
		340		345		350									
Lys	Ile	Val	Thr	Asp	Ser	Asn	Ser	Arg	Val	Ser	Glu	Pro	His	Arg	Ser
		355		360		365									
Ile	Phe	Pro	Glu	Met	His	Ser	Asp	Ser	Ala	Ser	Lys	Asp	Val	Pro	Gly
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<210> 6279

<211> 2795

<212> DNA

<213> Homo sapiens

<400> 6279

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<211> 619

<212> PRT

<213> Homo sapiens

<400> 6280

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<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

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			20					25					30		
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
		35					40					45			
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
	50					55					60				
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
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Met	Gly	Lys	Leu	Glu	Thr	Asp	Phe	Lys	Arg	Ser	Arg	Ile	Ala	Tyr	Ser
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			100					105				110			
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
		115						120				125			
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<212> DNA

<213> Homo sapiens

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<211> 122

<212> PRT

<213> Homo sapiens

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Ile	Leu	Leu	Ala	Ser	Ser	Trp	Lys	Arg	Pro	Glu	Pro	Gly	Ile	Leu	Thr
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<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

<400> 6288

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<400> 6289

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<400> 6290

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<211> 2718

<212> DNA

<213> Homo sapiens

<400> 6291

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<212> PRT

<213> Homo sapiens

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<211> 750

<212> DNA

<213> Homo sapiens

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 1980
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<210> 6296
 <211> 399
 <212> PRT
 <213> Homo sapiens

<400> 6296
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 Gly Leu Arg Gly Ser His Gly Ala Arg Gly Glu Pro Leu Asp Pro Ala
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 Arg Pro Leu Gln Arg Pro Pro Arg Pro Glu Val Pro Arg Ala Phe Arg
 65 70 75 80
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 85 90 95
 Gly Gly Arg Arg Ser Ile Ser Phe Ser Val Gly Ala Ser Ser Val Val
 100 105 110
 Gly Ser Gly Gly Ser Ser Asp Lys Gly Lys Leu Ser Leu Gln Asp Val
 115 120 125
 Ala Glu Leu Ile Arg Ala Arg Ala Cys Gln Arg Val Val Val Met Val
 130 135 140
 Gly Ala Gly Ile Ser Thr Pro Ser Gly Ile Pro Asp Phe Arg Ser Pro
 145 150 155 160
 Gly Ser Gly Leu Tyr Ser Asn Leu Gln Gln Tyr Asp Leu Pro Tyr Pro
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 Glu Ala Ile Phe Glu Leu Pro Phe Phe Phe His Asn Pro Lys Pro Phe
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 Phe Thr Leu Ala Lys Glu Leu Tyr Pro Gly Asn Tyr Lys Pro Asn Val
 195 200 205
 Thr His Tyr Phe Leu Arg Leu Leu His Asp Lys Gly Leu Leu Leu Arg
 210 215 220
 Leu Tyr Thr Gln Asn Ile Asp Gly Leu Glu Arg Val Ser Gly Ile Pro
 225 230 235 240
 Ala Ser Lys Leu Val Glu Ala His Gly Thr Phe Ala Ser Ala Thr Cys
 245 250 255
 Thr Val Cys Gln Arg Pro Phe Pro Gly Glu Asp Ile Arg Ala Asp Val
 260 265 270
 Met Ala Asp Arg Val Pro Arg Cys Pro Val Cys Thr Gly Val Val Lys
 275 280 285
 Pro Asp Ile Val Phe Phe Gly Glu Pro Leu Pro Gln Arg Phe Leu Leu
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 His Val Val Asp Phe Pro Met Ala Asp Leu Leu Leu Ile Leu Gly Thr

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305          310          315          320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
          370          375          380
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
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<210> 6297

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6297

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<210> 6298

<211> 146

<212> PRT

<213> Homo sapiens

<400> 6298

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          20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
          35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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			100					105				110		
Gln	Leu	Lys	Val	Leu	Leu	Ser	Gly	Lys	Asp	Gly	Cys	Pro	Ala	Gln
		115					120					125		Ser
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Cys	Ala													
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<210> 6299

<211> 1466

<212> DNA

<213> Homo sapiens

<400> 6299

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1200

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<210> 6300

<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

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			20					25					30		
Ser	Gly	Gly	Pro	Arg	Arg	Ser	Arg	Gly	Gly	Gln	Pro	Ala	His	Trp	Pro
			35				40					45			
Arg	Glu	Ser	Leu	Val	Leu	Tyr	His	Trp	Thr	Gln	Ser	Phe	Ser	Ser	Gln
	50					55				60					
Lys	Val	Arg	Leu	Val	Ile	Ala	Glu	Lys	Gly	Leu	Val	Cys	Glu	Glu	Arg
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Asp	Val	Ser	Leu	Pro	Gln	Ser	Glu	His	Lys	Glu	Pro	Trp	Phe	Met	Arg
				85					90					95	
Leu	Asn	Leu	Gly	Glu	Glu	Val	Pro	Val	Ile	Ile	His	Arg	Asp	Asn	Ile
			100					105					110		
Ile	Ser	Asp	Tyr	Asp	Gln	Ile	Ile	Asp	Tyr	Val	Glu	Arg	Thr	Phe	Thr
		115					120					125			
Gly	Glu	His	Val	Val	Ala	Leu	Met	Pro	Glu	Val	Gly	Ser	Leu	Gln	His
		130				135					140				
Ala	Arg	Val	Leu	Gln	Tyr	Arg	Glu	Leu	Leu	Asp	Ala	Leu	Pro	Met	Asp
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Ala	Tyr	Thr	His	Gly	Cys	Ile	Leu	His	Pro	Glu	Leu	Thr	Thr	Asp	Ser
				165					170					175	
Met	Ile	Pro	Lys	Tyr	Ala	Thr	Ala	Glu	Ile	Arg	Arg	His	Leu	Ala	Asn
			180					185					190		
Ala	Thr	Thr	Asp	Leu	Met	Lys	Leu	Asp	His	Glu	Glu	Glu	Pro	Gln	Leu
		195					200					205			
Ser	Glu	Pro	Tyr	Leu	Ser	Lys	Gln	Lys	Lys	Leu	Met	Ala	Lys	Ile	Leu
	210					215					220				
Glu	His	Asp	Asp	Val	Ser	Tyr	Leu	Lys	Lys	Ile	Leu	Gly	Glu	Leu	Ala
225					230					235					240
Met	Val	Leu	Asp	Gln	Ile	Glu	Ala	Glu	Leu	Glu	Lys	Arg	Lys	Leu	Glu
				245					250					255	
Asn	Glu	Gly	Gln	Lys	Cys	Glu	Leu	Trp	Leu	Cys	Gly	Cys	Ala	Phe	Thr
			260					265					270		
Leu	Ala	Asp	Val	Leu	Leu	Gly	Ala	Thr	Leu	His	Arg	Leu	Lys	Phe	Leu
		275					280					285			
Gly	Leu	Ser	Lys	Lys	Tyr	Trp	Glu	Asp	Gly	Ser	Arg	Pro	Asn	Leu	Gln

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305	310	315
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe		320
	325	330
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu		335
	340	345
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	355	360
Lys Lys Tyr Ile		365
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<210> 6301

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6301

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<210> 6302

<211> 202

<212> PRT

<213> Homo sapiens

<400> 6302

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      20           25           30
Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu Ser
      35           40           45
Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser
      50           55           60
Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
      65           70           75           80
Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
      85           90           95
Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
      100           105           110
Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
      115           120           125
Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys
      130           135           140
Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln
      145           150           155           160
Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
      165           170           175
Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val
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Ser Ala Glu Ile Ile Arg Lys Met Gln Gln
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<210> 6303

<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

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540

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<210> 6304
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<400> 6304
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 50 55 60
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
 65 70 75 80
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp
 85 90 95
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
 100 105 110
 Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
 115 120 125
 Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
 130 135 140
 Asp Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala
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 <212> DNA
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<210> 6306
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 <212> PRT
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<400> 6306
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 35 40 45
 Ile Val Glu Ala Ser Gly Gly Gly Ala Phe Leu Val Leu Pro Leu Ser
 50 55 60
 Lys Thr Gly Arg Ile Asp Lys Ala Tyr Pro Thr Val Cys Gly His Thr
 65 70 75 80
 Gly Pro Val Leu Asp Ile Asp Trp Cys Pro His Asn Asp Gln Val Ile
 85 90 95
 Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile Pro Glu
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 Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Val Leu Glu Gly
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 130 135 140
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 145 150 155 160
 Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro Asp Leu
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 Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys Ser Ala
 180 185 190
 Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu
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 Val Ala Glu Arg Glu Lys Ala His Glu Gly Ala Arg Pro Met Arg Ala
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 Ile Phe Leu Ala Asp Gly Lys Val Phe Thr Thr Gly Phe Ser Arg Met
 225 230 235 240
 Ser Glu Arg Gln Leu Ala Leu Trp Asn Pro Lys Asn Met Gln Glu Pro
 245 250 255
 Ile Ala Leu His Glu Met Asp Thr Ser Asn Gly Val Leu Leu Pro Phe
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 Tyr Asp Pro Asp Thr Ser Ile Ile Tyr Leu Cys Gly Lys Gly Asp Ser

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  305      310      315      320
Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe
      325      330      335
Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg
      340      345      350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro
      355      360      365
Glu Ala Ala Leu Glu Ala Glu Glu Trp Phe Glu Gly Lys Asn Ala Asp
      370      375      380
Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro Gly Lys Asn Arg
  385      390      395      400
Asp Leu Lys Val Val Lys Lys Asn Ile Leu Asp Ser Lys Pro Thr Ala
      405      410      415
Asn Lys Lys Cys Asp Leu Ile Ser Ile Pro Lys Lys Thr Thr Asp Thr
      420      425      430
Ala Ser Val Gln Asn Glu Ala Lys Leu Asp Glu Ile Leu Lys Glu Ile
      435      440      445
Lys Ser Ile Lys Asp Thr Ile Cys Asn Gln Asp Glu Arg Ile Ser Lys
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<210> 6307

<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307

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<210> 6308

<211> 483

<212> PRT

<213> Homo sapiens

<400> 6308

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Trp	Gln	Ser	Tyr	Leu	Gln	Gly	Gln	Met	Ile	Ser	Ala	Glu	Asp	Cys	Glu
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Phe	Ile	Gln	Arg	Phe	Glu	Met	Lys	Arg	Ser	Pro	Glu	Glu	Lys	Gln	Glu
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				85					90					95	
Val	Asp	Asp	Met	Leu	Gln	Glu	Asn	His	Gln	Arg	Val	Ser	Ile	Phe	Phe
			100					105					110		
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		115					120					125			
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Leu	Arg	Gly	Ser	Gly	Val	Ala	Val	Glu	Thr	Gly	Thr	Val	Ser	Ser	Ser
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225					230					235					240
Tyr	Gln	Met	Ile	Phe	Ser	Ile	Trp	Leu	Leu	Ala	Phe	Ser	Pro	Gln	Met
				245					250					255	
Cys	Glu	His	Leu	Arg	Arg	Tyr	Asn	Ile	Ile	Pro	Val	Leu	Ser	Asp	Ile
			260					265					270		
Leu	Gln	Glu	Ser	Val	Lys	Glu	Lys	Val	Thr	Arg	Ile	Ile	Leu	Ala	Ala
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Phe	Arg	Asn	Phe	Leu	Glu	Lys	Ser	Thr	Glu	Arg	Glu	Thr	Arg	Gln	Glu
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Tyr	Ala	Leu	Ala	Met	Ile	Gln	Cys	Lys	Val	Leu	Lys	Gln	Leu	Glu	Asn
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Leu	Glu	Gln	Gln	Lys	Tyr	Asp	Asp	Glu	Asp	Ile	Ser	Glu	Asp	Ile	Lys
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Phe	Leu	Leu	Glu	Lys	Leu	Gly	Glu	Ser	Val	Gln	Asp	Leu	Ser	Ser	Phe
			340					345					350		
Asp	Glu	Tyr	Ser	Ser	Glu	Leu	Lys	Ser	Gly	Arg	Leu	Glu	Trp	Ser	Pro
		355					360					365			
Val	His	Lys	Ser	Glu	Lys	Phe	Trp	Arg	Glu	Asn	Ala	Val	Arg	Leu	Asn
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Glu	Lys	Asn	Tyr	Glu	Leu	Leu	Lys	Ile	Leu	Thr	Lys	Leu	Leu	Glu	Val
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Ser	Asp	Asp	Pro	Gln	Val	Leu	Ala	Val	Ala	Ala	His	Asp	Val	Gly	Glu

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Tyr	Val	Arg	His	Tyr	Pro	Arg	Gly	Lys	Arg	Val	Ile	Glu	Gln	Leu	Gly				
			420					425					430						
Gly	Lys	Gln	Leu	Val	Met	Asn	His	Met	His	His	Glu	Asp	Gln	Gln	Val				
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Arg	Tyr	Asn	Ala	Leu	Leu	Ala	Val	Gln	Lys	Leu	Met	Val	His	Asn	Trp				
	450					455					460								
Glu	Tyr	Leu	Gly	Lys	Gln	Leu	Gln	Ser	Glu	Gln	Pro	Gln	Thr	Ala	Ala				
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<210> 6309

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6309

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180

ccgcgtggaa cagacgaccc ggggtctcaa gaggcggcgc gggcgggacg cagccccctg
240

tccatctcgg gcgcgcctg atgcactcct actgcgcccg ggtcctcccg gcctgtctca
300

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360

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420

ccgcagcttc tcccggagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
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564

<210> 6310

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6310

Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
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Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
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Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35 40 45

Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
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Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

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<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

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1320

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 1380
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 1440
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 1548

<210> 6312
 <211> 234
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys
 35 40 45
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys
 50 55 60
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu
 65 70 75 80
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val
 85 90 95
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr
 100 105 110
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln
 115 120 125
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn
 130 135 140
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu
 145 150 155 160
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu
 165 170 175
 Met Lys Cys His Gly Ser Gly Gly Ser Gln Gln Trp Thr Phe Gly Lys
 180 185 190
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val
 195 200 205
 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly
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 Ser Ser Ser Gln Gln Trp His Leu Glu Gly
 225 230

<210> 6313
 <211> 725
 <212> DNA
 <213> Homo sapiens

<400> 6313
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 725

<210> 6314
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 6314
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 His Pro Ser Thr Asn Ser Leu Leu Arg Glu Gln Ile Ser Leu Tyr Pro
 35 40 45
 Glu Val Lys Gly Glu Ile Ala Arg Lys Asp Glu Lys Leu Leu Ser Phe
 50 55 60
 Leu Lys Asp Val Tyr Val Asp Ser Lys Asp Pro Val Ser Ser Leu Gln
 65 70 75 80
 Val Lys Ala Ala Glu Thr Cys Gln Glu Pro Lys Glu Phe Arg Leu Pro
 85 90 95
 Lys Asp His His Phe Asp Met Ile Asn Ile Lys Ser Ile Pro Lys Gly
 100 105 110
 Lys Ile Ser Ile Val Glu Ala Leu Thr Leu Leu Asn Asn His Lys Leu
 115 120 125
 Phe Pro Glu Thr Trp Thr Ala Glu Lys Ile Met Gln Glu Tyr Gln Leu
 130 135 140
 Glu Gln Lys Asp Val Asn Ser Leu Leu Lys Tyr Phe Val Thr Phe Glu
 145 150 155 160
 Val Glu Ile Phe Pro Pro Glu Asp Lys Lys Ala Ile Arg Ser Lys
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<210> 6315
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 6315
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 180
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 240
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<210> 6316
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 6316
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 35 40 45
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
 50 55 60
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
 65 70 75 80
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
 85 90 95
 Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
 100 105 110
 Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
 115 120 125

<210> 6317
 <211> 1201
 <212> DNA
 <213> Homo sapiens

<400> 6317
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480
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<210> 6318

<211> 94

<212> PRT

<213> Homo sapiens

<400> 6318

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			20					25					30		
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser	Ser
	50					55					60				
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Lys	Pro

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          50           55           60
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Asp Ser Asp Ser
          195

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What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 10 contiguous nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
 - a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.

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(21) International Application Number: PCT/US00/08621

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IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
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(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier applications:

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- Before the expiration of the time limit for amending the
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*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

WO 00/58473 A3

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/08621

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/47 C07K16/18 G01N33/566 C12Q1/68
C12N15/11 C12N15/62 A01K67/027 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	--- LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence --- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

23.11.00

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Hix, R

INTERNATIONAL SEARCH REPORT

Internat' Application No

PCT/US 00/08621

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i>." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----</p>	6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/08621

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

